Virginia Department of Environmental Quality
Draft Hazardous Waste Management Permit for Corrective Action
CSX Transportation, Inc.
Richmond, Virginia
EPA ID No: VAD003121977
XX XX, 2021

Commonwealth of Virginia
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Hazardous Waste Management Permit for Corrective Action

Permittee: CSX Transportation, Inc.
2401 Charles City Road
Richmond, Virginia, 23231

EPA ID No.: VAD003121977

Pursuant to Chapter 14, Article 4. Title 10.1, Code of Virginia (1950), as amended, and regulations promulgated thereunder by the Virginia Department of Environmental Quality (DEQ), a Hazardous Waste Management Permit (Permit) is issued to CSX Transportation, Inc. (Permittee or CSXT), to complete site-wide corrective action, as necessary to protect human health and the environment, for all releases of hazardous waste or hazardous constituents from any solid waste management unit (SWMU) or Area of Concern (AOC). The facility being permitted is located in Henrico County, Virginia at 37º 30' 15.0" North latitude and 77º21' 30.0" West longitude, with a street address of 2401 Charles City Road, Richmond, Virginia 23294.

The Permittee shall comply with all terms and conditions set forth in this Permit including the Permit Attachments. If the Permit and Permit Attachments conflict, the wording of the Permit shall prevail. The Permittee shall also comply with all applicable regulations contained in the Virginia Hazardous Waste Management Regulations (VHWMR) as codified in Title 9 of the Virginia Administrative Code (VAC), Agency 20, Chapter 60 (9 VAC 20-60) and regulations promulgated by the United States Environmental Protection Agency (EPA) implementing the Resource Conservation and Recovery Act (RCRA) set forth in 40 CFR Parts 124, 260, 261, 262, 264, 268, and 270, as adopted by reference in the VHWMR. For convenience, wherever the RCRA regulations are adopted by reference and cited in this Permit and the Permit Attachments, the regulatory citations will be only those from 40 CFR.

The Commonwealth of Virginia has received authorization for its hazardous waste program under Section 3006(b) of RCRA, 42 U.S.C. §6926(b), to administer and enforce the RCRA regulations under the VHWMR in lieu of the federal hazardous waste management program. Applicable regulations are those under the VHWMR (9VAC 20-60) and the RCRA regulations (as adopted by reference) which are in effect on the date of final administrative action on this Permit and as well as any self-implementing statutory provisions and related regulations which are automatically applicable to the Permittee's hazardous waste management

activities, notwithstanding the conditions of this Permit.

This Permit is based on the administrative record and the assumption that the information submitted in the Part A and Part B Permit Application by the Permittee and contained in the administrative record are complete and accurate. The Permittee's failure to fully disclose all relevant facts in the submittal of the permit application or during the Permit issuance process, or the Permittee's misrepresentation of any relevant facts at any time, shall be grounds for the modification or termination of this Permit pursuant to the VHWMR, and in accordance with 40 CFR §§124.5, 270.41, 270.42, and 270.43, and shall also be grounds for initiation of an enforcement action. The Permittee shall inform DEQ of any deviations from permit conditions or changes from information provided in the application. In particular, the Permittee shall inform DEQ of any proposed changes that might affect the ability of the Permittee to comply with applicable regulations and/or permit conditions, or which alter any of the conditions of the Permit in any way.

This Permit is effective as of _____, 2020, and shall remain in effect until _____, 2030, unless revoked and reissued in accordance with 40 CFR §§124.5 and 270.41, terminated in accordance with 40 CFR § 270.43, or continued in accordance with 9VAC 20-60-270.B.15.

_____
Date Signed

_____
Leslie A. Romanchik
Hazardous Waste Program Manager
Office of Financial Responsibility and Waste Programs

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List of Attachments

The following Permit Attachments are incorporated, in their entirety, by reference into this Permit. These incorporated attachments are enforceable conditions of this Permit. The Department has, as deemed necessary, modified specific language from the permit application. Additional modifications are prescribed in the Permit Conditions (Modules I and II), and thereby supersede the language of the Permit Attachments to the extent that there is a direct conflict between the Attachments and Modules I and II of this Permit.

ATTACHMENT II.A - Facility Maps and Figures II.A-1

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Definitions

All definitions contained in 40 CFR §§124.2, 260.10, 270.2, 264.141, 264.1031, 264.1051, 264.1081, and Title 9 of the Virginia Administrative Code, Agency 20, Chapter 60 (9VAC 20-60) are hereby incorporated, in their entirety, by reference into this Permit. Any of the definitions presented in (a) through (m) below shall supersede any definition of the same term given in the previously cited sections of 40 CFR §§ 124.2, 260.10, 270.2, 264.141, 264.1031, 264.1051, 264.1081, and 9VAC 20-60. Where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. For the purposes of this Permit, the following definitions shall apply:

a. The term "**Area of Concern**" or "**AOC**" shall mean an area at the Facility or an off-site area, which is not at this time known to be a solid waste management unit, where hazardous waste and/or Hazardous Constituents are present or are suspected to be present as a result of a release from the Facility.

b. The term "**Days**" shall mean calendar days except as otherwise provided herein.

c. The term "**Department**" shall mean the Virginia Department of Environmental Quality (DEQ) with the address specified in Permit Condition I.I.

d. The term "**Director**" shall mean the Director of the Virginia Department of Environmental Quality or designated representative.

e. The term "**EPA**" shall mean United States Environmental Protection Agency.

f. The terms "**Facility**" or "**Site**" shall mean all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. For the purpose of implementing corrective action under 40 CFR § 264.101, "Facility" means all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of the Resource Conservation and Recovery Act (RCRA). For purposes of this Permit, the terms "Facility" or "Site" shall mean the property owned by CSXT consisting of approximately 52 acres of real estate in Henrico County, Virginia with an address of 2401 Charles City Road, Richmond, Virginia 23294, the location of which is shown in more detail in Figures II.A-1 and II.A-4 of the Permit.

g. The term "**Hazardous Constituent**" includes constituents identified in 40 CFR Part 264 Appendix IX in addition to those in 40 CFR 261, Appendix VIII, as defined in 9VAC 20-60-264.B.6.

h. The term "**Hazardous Waste Management Unit**" is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a

landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

i. The term "**Release**" shall mean any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, of any Hazardous Constituents, unless otherwise excluded pursuant to 40 CFR § 302.3 and Section 101(22) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C.§ 9601(22).

j. The term "**Permit**" shall mean the Permit issued by the Virginia Department of Environmental Quality, pursuant to Chapter 14, Article 4, Title 10.1, Code of Virginia (1950, as amended), and the Virginia Hazardous Waste Management Regulations (VHWMR) as codified in 9 VAC 20 60.

k. The term "**Permittee**" shall mean the owner/operator of the facility to which the Permit is issued.

l. The term "**Solid Waste Management Unit**" or "**SWMU**" shall mean any discernable unit at a facility from which hazardous constituents might migrate, irrespective of whether the unit was intended for the management of solid and/or hazardous wastes. Such a unit includes any area at a facility where solid wastes have been routinely and systematically released.

m. The term "**Unit**" refers to containers, container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, underground injection wells, and other physical, chemical, and biological units or treatment units.

MODULE I - STANDARD CONDITIONS

I.A. EFFECT OF PERMIT

I.A.1. Permit

This Permit, issued by the Director pursuant to 40 CFR §270.1(c)(4), authorizes only the management of hazardous waste under corrective action (CA) expressly described in this Permit and in accordance with the conditions of this Permit and with the applicable provisions of the Virginia Hazardous Waste Management Regulations (VHWMR) under 9VAC 20-60. Any management of hazardous waste by the Permittee which is not authorized by this Permit or 9VAC 20-60, and for which a permit is required under Chapter 14, Article 4, Title 10.1, Code of Virginia (1950, as amended), is prohibited (40 CFR §§270.30(g) and 270.4(b) and (c)). Compliance with this Permit generally constitutes compliance, for the purposes of enforcement, with Chapter 14, Article 4, Title 10.1-1426, Code of Virginia (1950, as amended). This Permit does not convey any property rights of any sort, or any exclusive privilege. Possession of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of Commonwealth of Virginia or local laws or regulations. Compliance with the terms of this Permit may not constitute a defense to any action brought under Chapter 14, Article 8, Code of Virginia (1950, as amended), or any other Commonwealth law governing protection of the public health or the environment.

I.A.2. Corrective Action Obligation

The Permittee is obligated to complete site-wide CA under the conditions of a RCRA Permit regardless of the operational status of the Facility. The Permittee must submit an application for a new Permit at least 180 days before this Permit expires pursuant to 40 CFR §270.10(h), unless the Permit has been modified to terminate corrective action and the Permittee has been released from the requirements for financial assurance for corrective action.

I.B. PERMIT ACTIONS

I.B.1. This Permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §§124.5, 270.30(f), 270.41, 270.42, and 270.43. The filing of a request by the Permittee for a Permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance does not stay the applicability or enforceability of any Permit Condition (40 CFR §270.30(f)).

I.B.2. Permit Modifications

Permit modifications at the request of the Permittee shall be done as specified by 40 CFR § 270.42.

I.B.3. Renewal

This Permit may be renewed as specified in 9 VAC 20-60-270.10 and 40 CFR §270.10(h), and Permit Condition I.D.2. Review of any application for a permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations.

I.C. SEVERABILITY

I.C.1. Provisions

The provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. Invalidation of any Commonwealth or federal statutory or regulatory provision which forms the basis for any condition of this Permit does not affect the validity of any other Commonwealth or federal statutory or regulatory basis for said condition (40 CFR § 124.16(a)(2)).

I.C.2. Permit is Stayed

In the event that a condition of this Permit is stayed for any reason, the Permittee shall continue to comply with the conditions of the existing permit which correspond to the stayed condition, unless the Director determines compliance with the existing conditions would be technologically incompatible with compliance with other conditions of this Permit which have not been stayed (40 CFR § 124.16(c)(2)).

I.D. DUTY AND REQUIREMENTS

I.D.1 Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit (40 CFR §270.61). Any other noncompliance with the Permit constitutes a violation of Title 10.1, Code of Virginia (1950, as amended), and regulations promulgated thereunder and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application (40 CFR § 270.30(a)).

I.D.2 Duty to Reapply

a. If the Permittee wishes to or is required to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee shall apply for and obtain a new Permit as specified below.

b. The Permittee shall submit a new and complete application for a new Permit at least 180 days before the Permit expires, unless a later date has been approved by the Director.

c. Pursuant to 9VAC 20-60-270.10.h, the Director shall not grant permission for an application to be submitted later than the existing Permit's expiration date (40 CFR §270.30(b)).

I.D.3 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense in an enforcement action to argue that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit (40 CFR §270.30(c)).

I.D.4 Duty to Mitigate

In the event of noncompliance with the Permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment (40 CFR §270.30(d)).

I.D.5 Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and controls (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls; (including appropriate quality assurance/quality control procedures). This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the Permit (40 CFR § 270.30(e)).

I.D.6 Duty to Provide Information

The Permittee shall furnish to the Director within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit (40 CFR § 270.30(h)).

I.D.7 Inspection and Entry

The Permittee shall allow the Director or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

a. Enter at reasonable times upon the Permittee's premise where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

d. Sample or monitor, at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by 9 VAC 20-60, any substance or parameters at any location (40 CFR § 270.30(i)).

I.D.8 Reporting Planned Changes

The Permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. This notice shall include a description of all incidents of noncompliance reasonably expected to result from the proposed changes (40 CFR § 270.30(l)(1)).

I.D.9 Anticipated Noncompliance

The Permittee shall give advance notice to the Director of any planned changes in the permitted Facility or activity which may result in noncompliance with the requirements of the Permit (40 CFR § 270.30(l)(2))

I.D.10 Twenty-Four Hour Reporting

The Permittee shall report to the Director any noncompliance with this Permit or the requirements of the VHWMR, which may endanger human health or the environment. Information shall be provided orally within twenty-four (24) hours from the time the Permittee becomes aware of the circumstances and shall include the following:

a. Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies;

b. Any information of a release or discharge of hazardous waste, or of a fire or explosion at the Facility, which could threaten the environment or human health outside the Facility;

c. The description of the occurrence and its cause shall include at least the following:

i. Name, address, and telephone number of owner or operator;

ii. Facility name, address, and telephone number;

iii. Date, time, and type of incident;

iv. Name and quantity of material(s) involved;

v. The extent of injuries, if any;

vi. An assessment of actual or potential hazard to human health and the environment outside the Facility, where this is applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident (40 CFR § 270.30 (l)(6)).

d. A written submission shall also be provided to the Director within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain the following:

i. A description of the noncompliance and its cause;

ii. The periods of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated duration of the noncompliance; and

iii. The steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

e. The Director may waive the five (5) day written notice requirement in favor of a written report within fifteen (15) days of the time the Permittee becomes aware of the circumstances (40 CFR § 270.30(l)(6)(iii)).

I.D.11 <u>Other Noncompliance</u>

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition I.D.10 (40 CFR §

270.30(l)(10)).

I.D.12 Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit such facts or information to the Director (40 CFR § 270.30(l)(11)).

I.E. MONITORING AND RECORDS

I.E.1. Monitoring Reports

Monitoring shall be performed and results shall be reported at the intervals specified in the Permit.

I.E.2. Samples and Measurements

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity (40 CFR § 270.30(j)(1)). The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method specified in 40 CFR Part 261, Appendix I, or an equivalent method approved by the Department or EPA. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846 (3rd ed.; November, 1986, as updated), Standard Methods of Wastewater Analysis (16th ed.; 1985, as updated), or an equivalent method approved by the Department or EPA. Additionally, the laboratory must be accredited for the analytical method, matrix and target analyte (where applicable) by the Virginia Environmental Laboratory Accreditation Program (VELAP).

I.E.3. Records of All Monitoring Information

a. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, all certifications required by 40 CFR §264.73(b)(9), and records of all data used to complete the application for this Permit, for a period of at least three (3) years (or longer if specified elsewhere in this Permit) from the date of the sample collection, measurement, report, certification, or application. These retention periods may be extended by the request of the Director at any time and are automatically extended during the course of any unresolved enforcement actions regarding this Facility. The Permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the post-closure care period.

b. Records of monitoring information shall include, at minimum:

i. The date, exact place, and time of sampling or measurements;

ii. The individual(s) who performed the sampling or measurements;

iii. The date(s) analyses were performed;

iv. The individual(s) who performed the analyses;

v. The analytical techniques or test methods used; and

vi. The results of such analyses (40 CFR §270.30(j)).

I.F. COMPLIANCE NOT CONSTITUTING DEFENSE

Compliance with the terms of this Permit does not constitute a defense to any action brought under Chapter 14, Article 8 of Title 10.1, Code of Virginia (1950, as amended) or any other Commonwealth law governing protection of the public or the environment.

I.G. TRANSFER OF PERMITS

This Permit is not transferable to any person except after notice to the Director (40 CFR § 270.30(l)(3)). The Director may require modification or revocation and reissuance of the Permit pursuant to 40 CFR §§ 124.5, 270.40, 270.41, 270.42, and 270.43, to change the name of the Permittee and incorporate such other requirements as may be necessary. If the name of the Permittee changes, the Director may require modification of the Permit through a Class 1 modification pursuant to 40 CFR § 270.42(a). Before transferring ownership or operation of the Facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of 9 VAC 20-60-264 and 40 CFR Parts 264 and 270 and at the same time shall send a copy of such notice to the Director (40 CFR § 264.12(c)).

I.H. PERMIT EXPIRATION AND CONTINUATION

Pursuant to 9VAC 20-60-270 B.15, this Permit will remain in force until the effective date of a new Permit if the Permittee has submitted a timely, complete application pursuant to Permit Condition I.D.2, and through no fault of the Permittee, the Director has not issued a new Permit with an effective date on or before the expiration date of this Permit. All conditions of the continued Permit shall remain fully effective and enforceable (40 CFR §270.51).

I.I. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE

DEPARTMENT

I.I.1. Annual Report

The Permittee shall submit an annual groundwater monitoring and post-construction corrective measures implementation status report no later than March 1st of each calendar year in accordance with Permit Condition II.C.

I.I.2. Biennial Report

The Permittee shall comply with the biennial reporting requirements 40 CFR §264.75, as applicable.

I.I.3. Five Year Corrective Measures Status Evaluation Report

The Permittee shall submit a status report every five (5)-years addressing the progress of the remedial measures at the Facility, including efforts to meet the cleanup targets and remedial goals for groundwater, and the effectiveness of the institutional controls and engineering controls for meeting human health and environmental protection objectives. The Permittee shall provide the Henrico County Health Department with a copy of each five (5) year status report. The report shall include, at minimum, a review of the Permittee's compliance with any potential environmental covenant requirements, groundwater and land uses on the Site and zoning maps or planning documents that may affect future land use in the impacted area. The required five (5)-year status reports that coincide with annual reports may be compiled with the corresponding annual reports.

I.I.4. Duty to Submit Documents

All work plans, reports, notifications or other submissions which are required by this Permit to be sent or given to the Director shall be sent by postal mailing, electronically, or be hand-delivered to:

For Corrective Action and Groundwater:
Department of Environmental Quality
Groundwater/Corrective Action Team Lead
Office of Remediation Programs
P.O. Box 1105
Richmond, VA 23218

For Permit Modifications:
Department of Environmental Quality
Hazardous Waste Program Manager
Office of Financial Responsibility and Waste Programs
PO Box 1105

Richmond, VA 23218

Street Address:
Department of Environmental Quality
1111 East Main Street, Suite 1400
Richmond, VA 23219

And one (1) copy of all such correspondence, reports, and submissions shall also be sent to:

Land Program Manager, Piedmont Regional Office:
Department of Environmental Quality
4949-A Cox Road
Glen Allen, VA 23060

Environmental Protection Agency, Region III
Virginia Program Manager
1650 Arch Street
Philadelphia, PA 19103-2029
Mail Code: (3CLD50)

I.I.5. Signatory Requirements

All applications, work plans, reports, and other information submitted shall be signed and certified as specified by 40 CFR § 270.11.

I.J. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

I.J.1. Documents

Current copies of the following documents, as amended, revised, and modified, shall be maintained by the Permittee at an off-site location due to closure of the Facility and made available to the Department at the off-site location upon request. These documents shall be maintained until corrective action is completed and certified by the Permittee and by an independent, Virginia-registered professional engineer, unless a lesser time is specified in the Permit.

a. The Permit, including all attachments, revisions and modifications;

b. All Part A and B Permit Applications supporting the Permit;

c. Inspection schedules and logs required by 40 CFR § 264.15(b)(2) and § 264.15(d), as applicable;

d. Groundwater sampling and analysis plans for long term groundwater

monitoring required by this Permit, including groundwater monitoring results;

e. Operations and maintenance plan required by this Permit, as applicable;

f. Corrective Action Work Plans, Reports, and other information and submissions regarding corrective action, as applicable under this Permit; and

g. All other documents required by Permit Condition(s) I.D.8 through I.D.12 and I.E, as applicable.

h. The documents listed above shall be retained at Bryan Park Terminal, 1 CSX Road, Richmond, Virginia 23230.

I.K. TRADE SECRET PROTECTION

In accordance with §10.1-1458 of the Code of Virginia (1950, as amended), the Permittee may claim any information this Permit requires, or is otherwise submitted to the Director as a trade secret.

a. Information designated as a trade secret submitted pursuant to this section shall be excluded from the provisions of the Virginia Freedom of Information Act as provided in subdivision 26 §2.2-3705.6 of the Code of Virginia. In doing so, the Permittee shall:

   i. Assert any such claim at the time of submittal;

   ii. Identify the data or materials for which protection is being sought; and

   iii. State the reasons why protection is necessary.

b. Further information regarding trade secret protection, the basis for submittal of such a request, the Department's decision process and handling of trade secret protected information is available on the Virginia Regulatory Town Hall website, http://townhall.virginia.gov/L/ViewGDoc.cfm?gdid=5322.

c. If no claim is made at the time of submittal, the Director may make the information available to the public without further notice.

d. The Permittee has the burden of substantiating that the claimed information is a trade secret, and the Department may request further information regarding such claim, and may reasonably determine which such information to treat as a trade secret. The Department may disclose trade secret information to the appropriate officials of the Environmental Protection Agency (EPA) pursuant to the requirements of the federal Solid Waste Disposal Act, 42 U.S.C. §

3251, et seq., or as otherwise required by law.

I.L. APPROVAL/DISAPPROVAL OF SUBMISSIONS

I.L.1. Review

The Department will review the plans, reports, schedules and other documents (hereinafter collectively referred to as "submissions) that are submitted which require the Department's approval. The Department will notify the Permittee in writing of the Department's approval, conditional approval, or disapproval of each submission.

I.L.2. Approval

Each submission required by this Permit, upon approval by the Department, is incorporated into this Permit. Any noncompliance with a Department-approved submission shall be deemed as noncompliance with this Permit. A conditionally approved submission, including any terms of such conditional approval set forth in Department's decision, shall constitute the Department-approved submission and shall be incorporated into this Permit.

I.L.3. Conditional Approval

In the event of the Department's conditional approval of submission, the Department shall specify in writing any deficiencies in the submission and the terms upon which approval of the submission is conditioned. If the Permittee disputes any term upon which approval of the submission was conditioned, the Permittee may initiate Dispute Resolution pursuant to Permit Condition I.M.

I.L.4. Disapproval

In the event of the Department's disapproval of a submission, the Department shall specify the deficiencies in writing. The Permittee shall address the specified deficiencies within a reasonable time period established by the Department, taking into account the tasks to be performed, and submit the revised submission to the Department for approval.

I.L.5. Revision Disapproval

If the revised submission is disapproved, the Department will notify the Permittee of the deficiencies in writing and specify a schedule for the Permittee to address the deficiencies and resubmit the submission to the Department. The Permittee shall address the deficiencies identified by the Department, and forward the revised submission within the time period specified by the Department. In the event the Permittee disagrees with the Department's disapproval of the revised

submission, the Permittee shall notify the Department in writing and the disagreement shall be resolved in accordance with the Dispute Resolution provision in Permit Condition I.M.

I.M. DISPUTE RESOLUTION

I.M.1. Disagreement with Department's Determination

Except as otherwise provided in this Permit, in the event that the Permittee disagrees, in whole or in part, with Department disapproval of any submission required by this Permit, the Permittee shall notify the Department in writing of its objections, and the basis thereof, within fourteen (14) days after receipt of the Department's written disapproval. Such notice shall set forth the specific matters in dispute, the position(s) the Permittee asserts which should be adopted as consistent with the requirements of the Permit, the basis for the Permittee's position, and supporting documentation considered necessary for the Department's determination.

I.M.2. Resolution

The Department and the Permittee shall have an additional fourteen (14) days from the Department's receipt of the notification to meet or confer to resolve any disagreement or dispute. In the event agreement is reached, the Permittee shall submit the revised submission and implement the same in accordance with such agreement.

I.M.3. Agreement Not Met

In the event the Permittee and the Department are not able to reach an agreement on the items in dispute within the additional fourteen (14) day period, the Department will notify the Permittee in writing of its decision on the dispute and the Permittee shall comply with the terms and conditions of the Department's decision in the dispute, subject to Permittee's appeal rights as described in Permit Condition I.M.4 and as otherwise may exist. The Permittee does not waive and fully reserves its rights to assert any and all available defenses in a proceeding to enforce this Permit.

I.M.4. Appeal

In the event the Permittee disagrees with Department's disapproval of a submission or revised submission and the Department's written decision regarding disputed items, the Permittee may file an appeal with the Department within 30 days of the disapproval (as provided for in Rule 2A:2 of the Supreme Court of Virginia).

MODULE II - SITE-WIDE CORRECTIVE ACTION

II.A. CORRECTIVE ACTION FOR CONTINUING RELEASES; PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT

II.A.1. Required Corrective Action

Section 3004(u) of RCRA, 42 U.S.C. §6924(u), and regulations codified at 40 CFR §264.101, provide that all permits issued after November 8, 1984, must require corrective action (CA) as necessary to protect human health and the environment for all releases of hazardous waste or hazardous constituents from any solid waste management unit (SWMU), regardless of when waste was placed in the unit.

II.A.2. Corrective Action Boundary

Under Section 3004(v) of RCRA, 42 U.S.C. § 6924(v), and 40 CFR § 264.101(c), the Department may require that corrective action at a permitted facility be taken beyond the facility boundary where necessary to protect human health and the environment, unless the owner or operator of the facility concerned demonstrates to the satisfaction of the Department that, despite the owner or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action.

II.A.3. Terms and Conditions

Section 3005(c)(3) of RCRA, 42 U.S.C. § 6925(c)(3), and 40 CFR § 270.32(b) provide that each RCRA permit shall contain such terms and conditions as the Department determines necessary to protect human health and the environment.

II.B. CORRECTIVE MEASURES IMPLEMENTATION

II.B.1. Background

Beazer East, Inc. (Beazer) entered into an Administrative Order on Consent (the Consent Order) with EPA on April 24, 1991, pursuant to Section 3008(h) of RCRA to address corrective action requirements under RCRA applicable to the Facility as depicted in Permit Attachment II.A (the Site). The Consent Order required Beazer to implement certain interim measures, to complete a RCRA Facility Investigation (RFI) and to complete a Corrective Measures Study (CMS) in connection with the Site. CSX Transportation Inc. (CSXT) subsequently acquired the Site from Beazer on March 21, 1997. The obligations of the Consent Order were transferred from Beazer to CSXT effective April 22, 1998. Permit Attachment II.B provides additional history and background information regarding the Site.

II.B.2. Selection of Corrective Measures

a. Based on the findings in the RFI and the CMS, EPA concluded that past operations at the Site resulted in soil, sediment and groundwater contamination. The Department, as part of the Administrative Record, has compiled reports and documentation regarding completion of site-wide investigations and studies. Based on the CMS results and the Administrative Record, the final corrective measures for the Site were developed and described in the Statement of Basis, dated July 29, 2009, and the Final Decision and Response to Comments (FDRTC) document, issued by EPA on December 21, 2009.

b. The corrective measures described in the Statement of Basis and FDRTC document have largely been completed as described in the final Corrective Measures Implementation Construction Completion Report approved by EPA on September 29, 2016. The requirements of the Permit provide for the remaining implementation and the operation and maintenance (O&M) of the corrective measures remedy described in the Statement of Basis and FDRTC document. Corrective action remedial goals for groundwater are contained in Permit Attachment II.C.

II.B.3. Remedy Controls

The goal of the facility-wide corrective action is to ensure overall protection of human health and the environment. The final corrective measures remedy for the Site consists of active remediation, long-term groundwater monitoring, and implementing institutional and engineering controls. Institutional Controls (ICs) are generally non-engineered mechanisms such as administrative and/or legal controls that minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Engineering Controls (ECs) are generally engineered mechanisms such as a landfill cap.

II.B.4. Final Corrective Measures

The final corrective measures selected by EPA and the Department for the Site include the following components to address environmental conditions and potential risks posed by those conditions:

a. Demolition of buildings in areas where active remediation is required to facilitate construction of the corrective measures;

b. Installation of a slurry wall to contain the source area and control groundwater migration away from the source area. The source area consists of the former treatment area: Area of Concern (AOC) 1 – Closed Surface Impoundment;

AOC 2A – Creosote Unloading Area and Treatment Area; northern part of AOC 2B – Drip Tracks; AOC 2C – Former Tanks; AOC 3 – Container Storage Areas; northern part of AOC 4 – Temporary Drum Storage Areas; and AOC 6 – Water Supply Pond;

c. Excavation of targeted surface soils, subsurface soils and sediments outside the slurry wall containment area and consolidation of the excavated material inside the slurry wall containment area beneath an engineered cap to preclude future potential exposure to the excavated material by receptors;

d. Restoration of excavated areas including backfilling with clean soil and establishing vegetative cover, and restoration of the Eastern Drainage Ditch (EDD) area;

e. Recovery of free product using recovery wells installed in the treatment area (AOC 2A) and the northern portion of the drip track area (AOC 2B) to the extent practicable;

f. Treatment of groundwater outside of the slurry wall containment area using a combination of targeted in situ chemical oxidation to the extent practicable, oxidative bioremediation, and natural intrinsic attenuation processes coupled with groundwater monitoring to evaluate the effectiveness and progress of treatment and natural attenuation processes;

g. Dewatering, backfilling and capping of the former water supply pond (AOC 6);

h. Abandoning the water former water supply well (PW-1) in the former pump house;

i. Long-term monitoring and O&M including monitoring the performance of the containment system, inspection and maintenance of the cap and other onsite areas, free product recovery operations, monitored natural attenuation of groundwater, and monitoring and maintenance of institutional controls; and

j. Implementation of institutional controls to prohibit activities that may interfere with the engineered remedy and restrict or prevent activities that may result in unacceptable risk to human health and the environment.

II.B.5. <u>Implementation of Corrective Measures</u>

a. Implementation of the final corrective measures has included three components: physical construction, post-construction monitoring, and imposition of activity and use limitations (i.e., institutional controls).

b. As listed above, the first component of the selected corrective measures (demolition of buildings) was completed in 2009. A Building Demolition Work Plan was submitted to EPA and the Department by the Permittee and approved by EPA and the Department in July 2009. Following receipt of approval from EPA and the Department, the Building Demolition Work Plan was implemented and building demolition activities were essentially completed by late November 2009. A Building Demolition Completion Report was submitted to EPA and the Department on June 29, 2010.

c. In accordance with the Corrective Measures Implementation (CMI) Plan, the Permittee submitted a 30% Design Report, a 90% Design Report and a Final 100% Design Report to EPA and the Department. The Final 100% Design Report was submitted to EPA and the Department on October 17, 2013 and was subsequently approved by EPA.

d. Following detailed planning, submittal reviews and approvals, and permitting, contractor mobilization to implement the final corrective measures occurred at the end of June 2014. Construction of the physical aspects of the final corrective measures was substantially completed in September 2015 and final stabilization was accepted by Henrico County, EPA, and the Department in July 2016. A final CMI Construction Completion Report was submitted to EPA and the Department on September 15, 2016. EPA issued a "Construction Complete" letter on September 29, 2016.

e. Since completion of the construction of the various components of the corrective measures, several long-term monitoring and O&M activities have been and are being performed at the Site to ensure the protectiveness of the remedy. These tasks include the following:

   i. Groundwater quality and hydraulic monitoring to evaluate the effectiveness of the corrective measures;

   ii. Free product recovery;

   iii. Site inspections and maintenance; and

   iv. Monitoring and maintaining institutional controls.

f. Each of these tasks is briefly discussed in the Post Construction Implementation (PCI) Plan included as Appendix H-1 in the Final 100% Design Report submitted to EPA and the Department on October 17, 2013 and are described in the document included herein in Permit Attachment II.B. Implementation of the PCI Plan was initiated upon receiving approval from EPA and the Department of the CMI Construction Completion Report.

g. Following approval from EPA and the Department of the CMI Construction Completion Report, the Permittee prepared an environmental covenant in accordance with the Virginia Uniform Environmental Covenants Act, § 10.1-1238, et seq. of the Code of Virginia. After the environmental covenant was executed by the Permittee and the Department, the environmental covenant was recorded by the Clerk of the Circuit Court for Henrico County on October 2, 2018. A copy of the environmental covenant is included in Permit Attachment II.D. The environmental covenant can be found at Book 0785, Page 2086 of the real property records of the Circuit Court for Henrico County.

h. The current owner and future owners of the Facility are obligated to comply with the activity and use limitations contained in the environmental covenant because the activity and use restrictions run with the land. These institutional controls are consistent with the provisions of the FDRTC document. The institutional controls utilized at the Site do the following:

   i. Prohibit the use of the Site for residential purposes (including improvements, structures or dwellings used for living accommodations such as single family homes, multiple family dwellings, detached housing, condominiums, apartment buildings, dormitories, senior citizen housing and other residential-style facilities; schools; day care centers; child care centers; hospitals; and in-patient health care facilities);

   ii. Prohibit the use of groundwater from beneath the Site (except as may be necessary for the collection of groundwater samples and installation and use of groundwater monitoring, recovery, injection or extraction wells or similar devices used for or related to the performance of groundwater assessment or remediation activities);

   iii. Restrict excavation of subsurface soils at the Site except in conformance with an appropriate soil management plan;

   iv. Restrict activities that would interfere with or adversely impact the integrity of the slurry wall; and

   v. Require that the cap over the containment area be periodically inspected and maintained.

i. On February 27, 2019, the Permittee submitted a notification to prohibit well drilling under Virginia's Private Well Regulations, 12 VAC 5-630-380, to the local health department district (the Henrico County Health Department). The notice describes the nature and extent, including a map, survey description, and geographic coordinates of impacted groundwater underlying the Facility. The notice will be updated every five (5) years to coincide with the five-year

status evaluation reports addressing the status and progress of the corrective measures pursuant to Permit Condition I.I.3 or such longer interval as may be approved by the Department to reflect the latest information concerning the groundwater plume boundary. A copy of the notification, as updated, will be provided to EPA and the Department.

II.C. EVALUATION OF THE SELECTED REMEDY

The Permittee shall submit an annual progress report by March 1st of each following year covering the status and performance of completed corrective measure(s) and shall continue to submit annual groundwater monitoring reports until remedial clean-up requirements for groundwater have been met. If the Department determines that the selected corrective measure(s) will not comply with the groundwater clean-up requirements, the Department may require the Permittee to perform additional studies and/or perform modifications to the existing corrective measure(s). If necessary, the Department or the Permittee may seek modification of this Permit pursuant to 40 CFR §§ 270.41 or 270.42 and 40 CFR § 124.5 to implement modifications to the existing corrective measure(s).

II.D. EMERGENCY RESPONSE; RELEASE REPORTING

II.D.1. Emergencies

If, at any time during the term of this Permit, the Permittee discovers that a release of hazardous waste or hazardous constituents at or from the Facility is presenting or may present an imminent and substantial endangerment to human health or the environment, the Permittee shall:

a. Notify the Department as soon as practicable of the source, nature, extent, location and amount of such release, the endangerment posed by such release and the actions taken and/or to be taken, to the extent known, to address such release. Such notification shall be confirmed in writing within five (5) days after discovery of such release as required in Permit Condition I.D.10; and

b. Unless otherwise directed by the Department, immediately take such actions as are necessary and appropriate to address such release.

II.D.2. Releases

The Permittee shall notify the Department in writing of the nature, source, extent, and location of a release of hazardous waste or hazardous constituents at or from the Facility within seven (7) days after discovery of such release which:

a. Is not being addressed by corrective measures at the time of such discovery; and

b. Is not being addressed pursuant to Permit Conditions II.D.1, Emergencies.

II.D.3. Requirement of SWMU and AOC

If based on the information submitted in Permit Condition II.D.2, Releases, a release has not been adequately remediated to be protective of human health and the environment, the Department may require the SWMU and/or AOC to be included in a RCRA Facility Investigation or may require Interim Measures be undertaken to address the release.

II.E. DEPARTMENT'S AUTHORITY

Nothing in this Permit shall limit the Department's authority to undertake or require any person to undertake a response action or corrective action under any law, including but not limited to, Sections 104 or 106 of CERCLA, 42 U.S.C. §§ 9604 or 9606, and Section 7003 of RCRA, 42 U.S.C. § 6973. Nothing in this Permit shall relieve the Permittee of any obligation it may have under any law, including, but not limited to, Section 103 of CERCLA, to report releases of hazardous waste, hazardous constituents or hazardous substances to, at or from the Facility.

II.F. GUIDANCE DOCUMENTS

Any corrective action performed at the Facility shall be in general accordance with applicable EPA RCRA corrective action guidance available at: https://www.epa.gov/hwcorrectiveactionsites/corrective-action-resources-specific-epas-region-3.

II.G. SOLID WASTE MANAGEMENT UNIT (SWMU) ASSESSMENT

The RFI at the Site is complete for both on-site and off-site areas, and it is believed that all SWMUs have been identified. However, in the event a new SWMU is identified, the procedures in this section of the Permit will be implemented.

II.G.1. Newly Identified SWMU

The Permittee shall notify the Department and EPA Region III, in writing, of any newly identified SWMU at the Facility, no later than thirty (30) days after the date of discovery. The notification shall include the following information, if known:

a. A description of the SWMU's type, function, dates of operation, location (including a map), design criteria, dimensions, materials of construction,

capacity, ancillary systems (e.g., piping), release controls, alterations made to the unit, engineering drawings, and all closure and post-closure information available, particularly whether wastes were left in place;

b. A description of the composition and quantities of solid wastes processed by the unit with emphasis on hazardous wastes and hazardous constituents;

c. A description of any release (or suspected release) of hazardous waste or hazardous constituents originating from the unit including:

i. Information on the date of release, type of hazardous waste or hazardous constituents, quantity released, nature of the release, extent of release migration, and cause of release (e.g., overflow, broken pipe, tank leak, etc.);

ii. Any available data that quantifies the nature and extent of environmental contamination, including the results of soil and/or groundwater sampling and analysis efforts; and

iii. Existing monitoring information that indicates that a release of hazardous waste or hazardous constituents has not occurred or is not occurring; and

iv. A discussion of the need for and feasibility of implementing interim measures immediately.

II.G.2. Department Determination of Need for Corrective Action

Upon receipt of the notification of any newly identified SWMU, the Department will determine the need for corrective action at such SWMU. If corrective action is necessary to protect human health or the environment, the Department will determine whether a RCRA Facility Investigation will need to be performed and the need for and scope of any Interim Measures for the newly identified SWMU.

II.G.3. Actions for New SWMU

Within sixty (60) days after receipt of the Director's determination that a supplemental RFI or IM is necessary, the Permittee shall submit a supplemental RFI Work Plan or IM Work Plan for the newly identified SWMU. The Department's determination shall either specify the media and/or parameters to be investigated or shall require the Permittee to propose and justify the selection of media and/or parameters.

II.G.4. Reports

Within the time specified in the approved supplemental RFI Work Plan or IM

Work Plan, the Permittee shall submit the RFI Report or IM Report. The report will provide all data necessary for the Department to determine whether a Corrective Measures Study or additional IM Work Plan is required.

II.G.5. RCRA Facility Investigation and Corrective Measures

In lieu of a separate supplemental RFI, the Permittee may propose to incorporate any newly identified SWMU into the ongoing corrective measures. Any such proposal shall be submitted to the Department along with notification of the discovery of the SWMU(s).

II.H. FINANCIAL ASSURANCE

II.H.1. Initial Cost Estimate

Assurances of financial responsibility for corrective action must be provided in accordance with conditions herein. The Permittee submitted an initial cost estimate for completion of the corrective measures as a component of the CMS Report submitted to the Department on June 19, 2009.

II.H.2. Cost Estimate Updates

The cost estimate for completing the approved corrective measures shall be updated pursuant to any changes or modifications to the final corrective measures approved by the Department. Within ninety (90) calendar days after receipt of the Department's written approval of modifications to the final corrective measures, the Permittee shall submit an updated cost estimate to the Department.

II.H.3. Financial Assurance Demonstration

The Permittee shall demonstrate compliance with financial assurance to the Department in accordance with 40 CFR § 264.101(b). Within thirty (30) calendar days of approval of any updated or revised cost estimate, the Permittee shall demonstrate to the Department financial assurance for the revised or updated cost estimates.

II.I. RECORDKEEPING

Upon completion of closure of any SWMU in the future, the Permittee shall maintain in the Facility's operating record, documentation of the closure measures taken.

II.J. ACCESS FOR CORRECTIVE ACTION OVERSIGHT

The Department and EPA and their authorized representatives shall have access to

the Site, in accordance with Permit Condition I.D.7, at all reasonable times for the purpose of monitoring compliance with the provisions of this Permit. The Permittee shall use its best efforts to obtain access to property beyond the boundaries of the Site at which corrective action is required by this Permit (see Section 3004(v) of RCRA, 42 U.S.C. § 6924(v) and 40 CFR § 264.101(c)); (1) for itself and any contractor of the Permittee for the purpose of taking corrective action required by this Permit, and (2) for the Department and its authorized representatives for the purposes described in this paragraph.

II.K. COMPLETION OF FINAL CORRECTIVE MEASURES

II.K.1. The Permittee shall submit a written notification and certification to the Department stating that the final corrective measures have been completed and remedial goals have been attained in accordance with requirements of this Permit. The certification must be signed by the Permittee and by an independent, Virginia registered professional engineer. After receipt of notification and certification from the Permittee, the Department shall either approve or deny the completion determination.

II.K.2. No Remaining Permit Conditions

In cases where no other Permit Conditions remain, the Permit may be modified not only to reflect the completion determination but also to change the expiration date of the Permit to allow for earlier permit expiration in accordance with 40 CFR §§ 124.5, 270.41, and 270.42, as applicable.

II.L. WELL ABANDONMENT

Upon completion of the final corrective measures or as needed in the interim, the Permittee shall request approval for abandonment of monitoring wells, observation wells, injection wells, and recovery wells from the Department prior to implementing well abandonment activities. All wells that are to be abandoned shall be plugged and abandoned in general accordance with 12 VAC 5-630-420 and 12 VAC 5-630-450. Chlorination of each well is not required. An effort to remove the well casing and associated materials shall be made at each well prior to abandonment. A report including methods and certification shall be submitted to the Department within thirty (30) days following the completion of well abandonment activities. The Permittee may propose alternate methods for well abandonment and must obtain approval from the Department prior to implementation of such methods.

ATTACHMENT II.A - FACILITY MAPS AND FIGURES

Figure II.A-1: USGS Vicinity Map

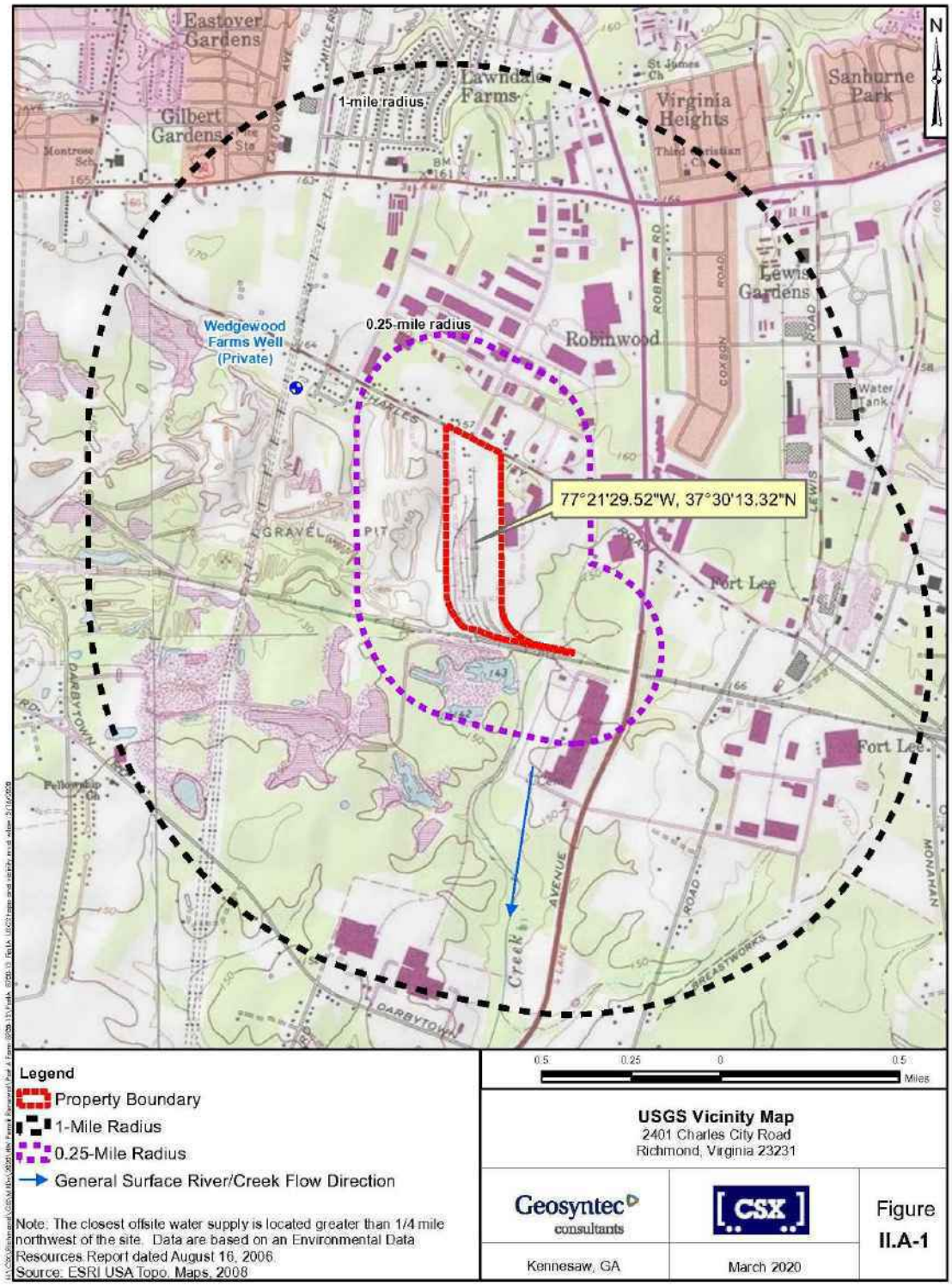


Figure II.A-2: USGS Site Map

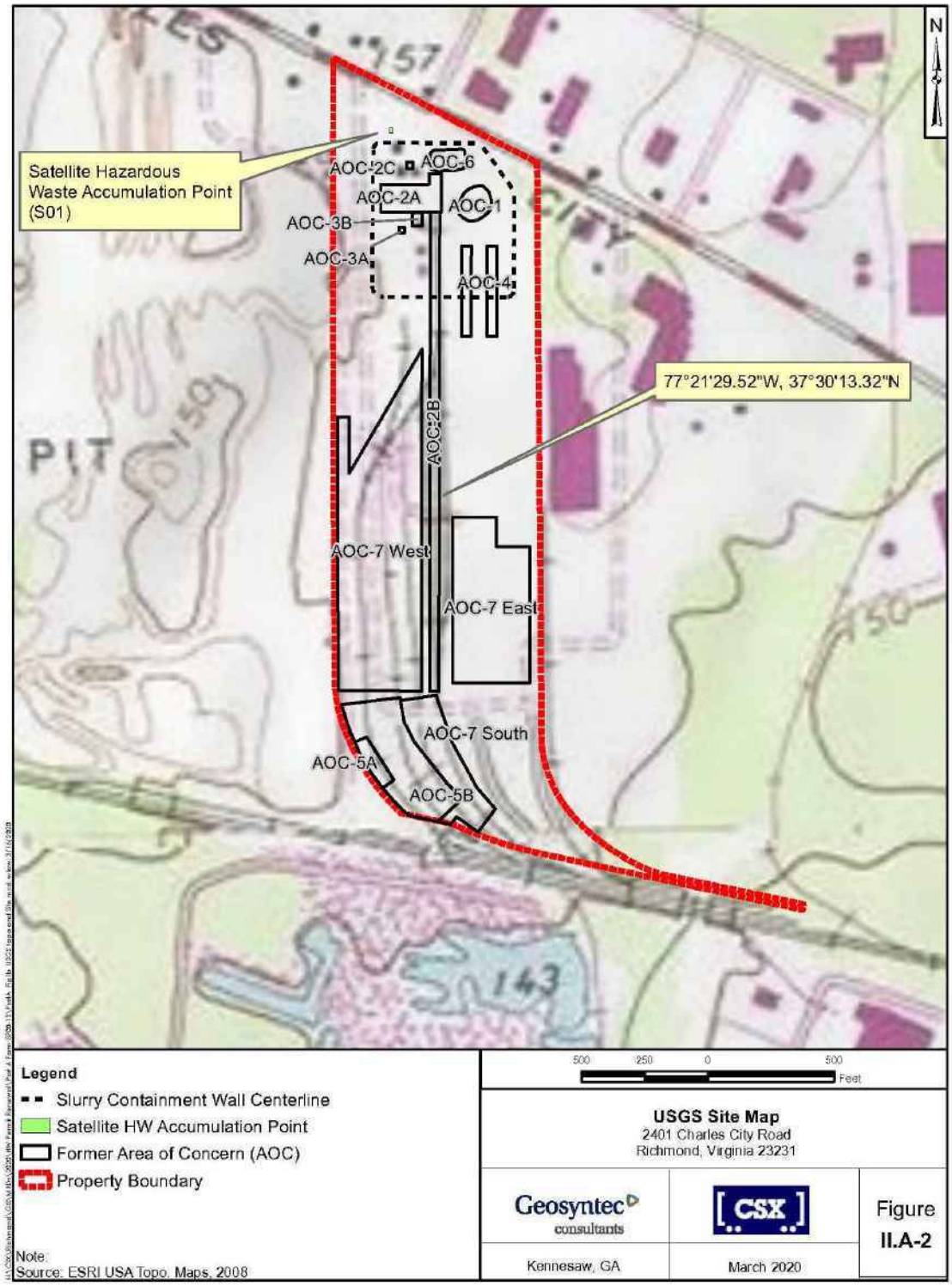


Figure II.A-3: Facility Aerial Map

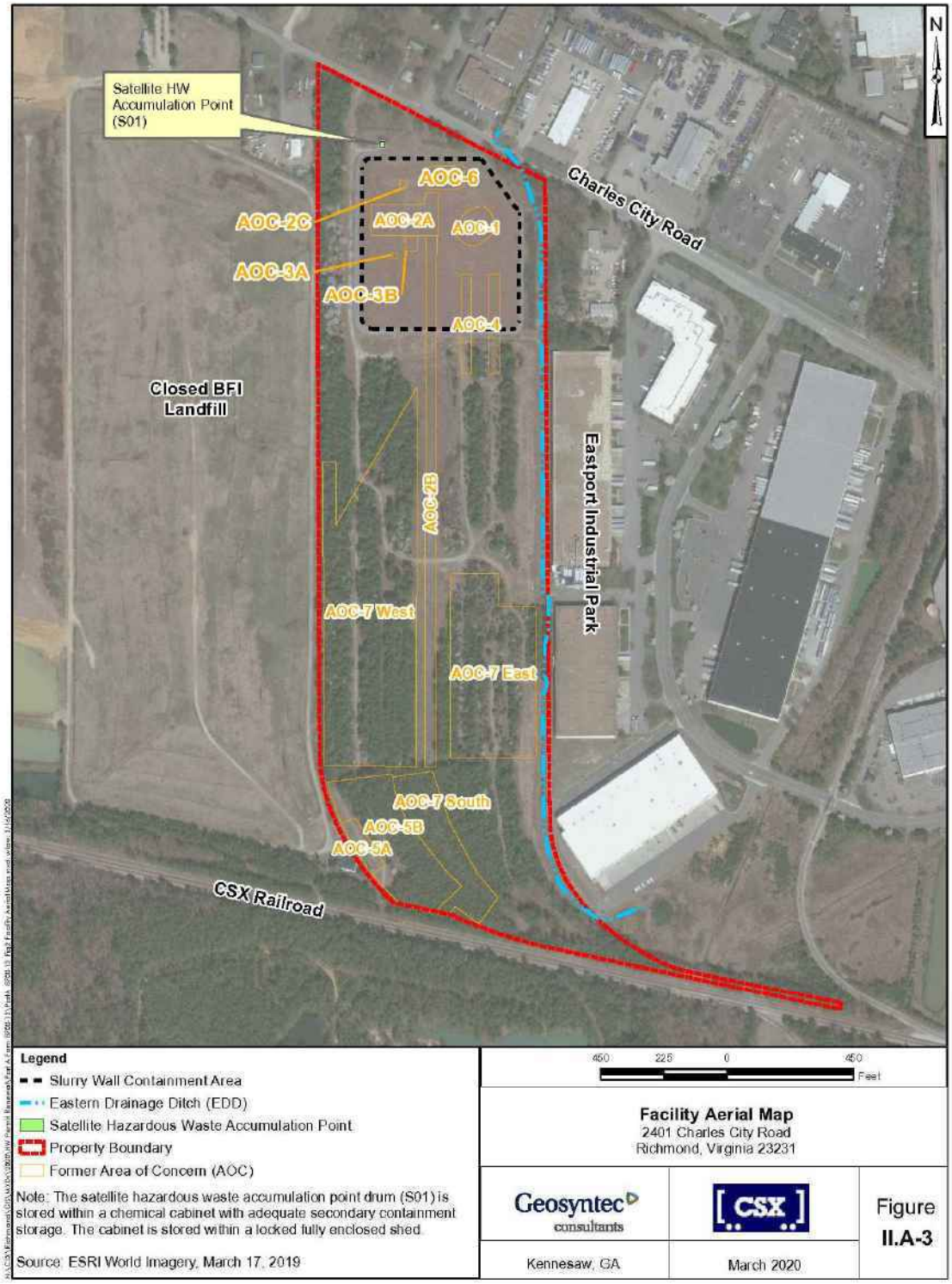


Figure II.A-4: Site Location Map

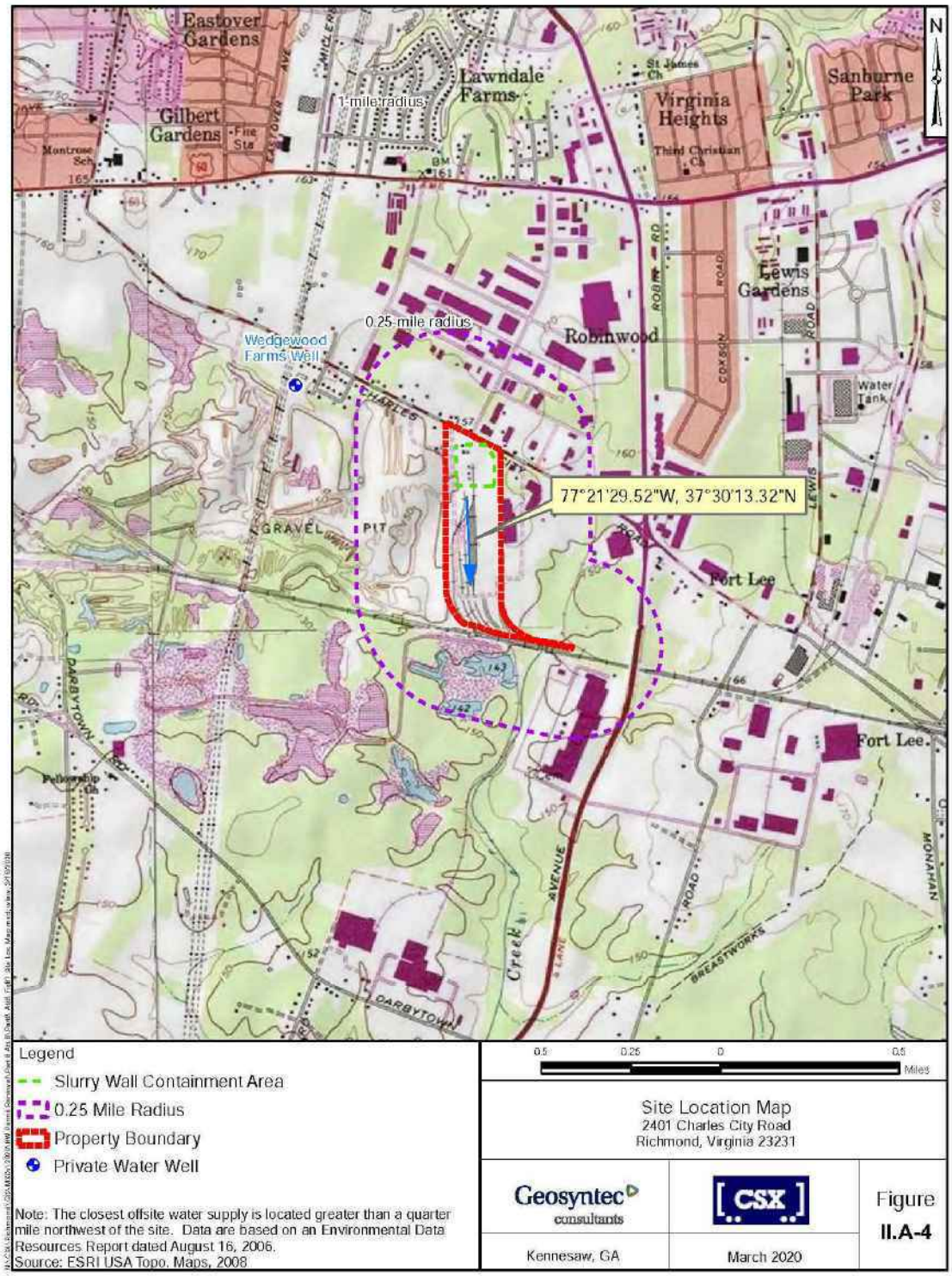


Figure II.A-5: Site Aerial

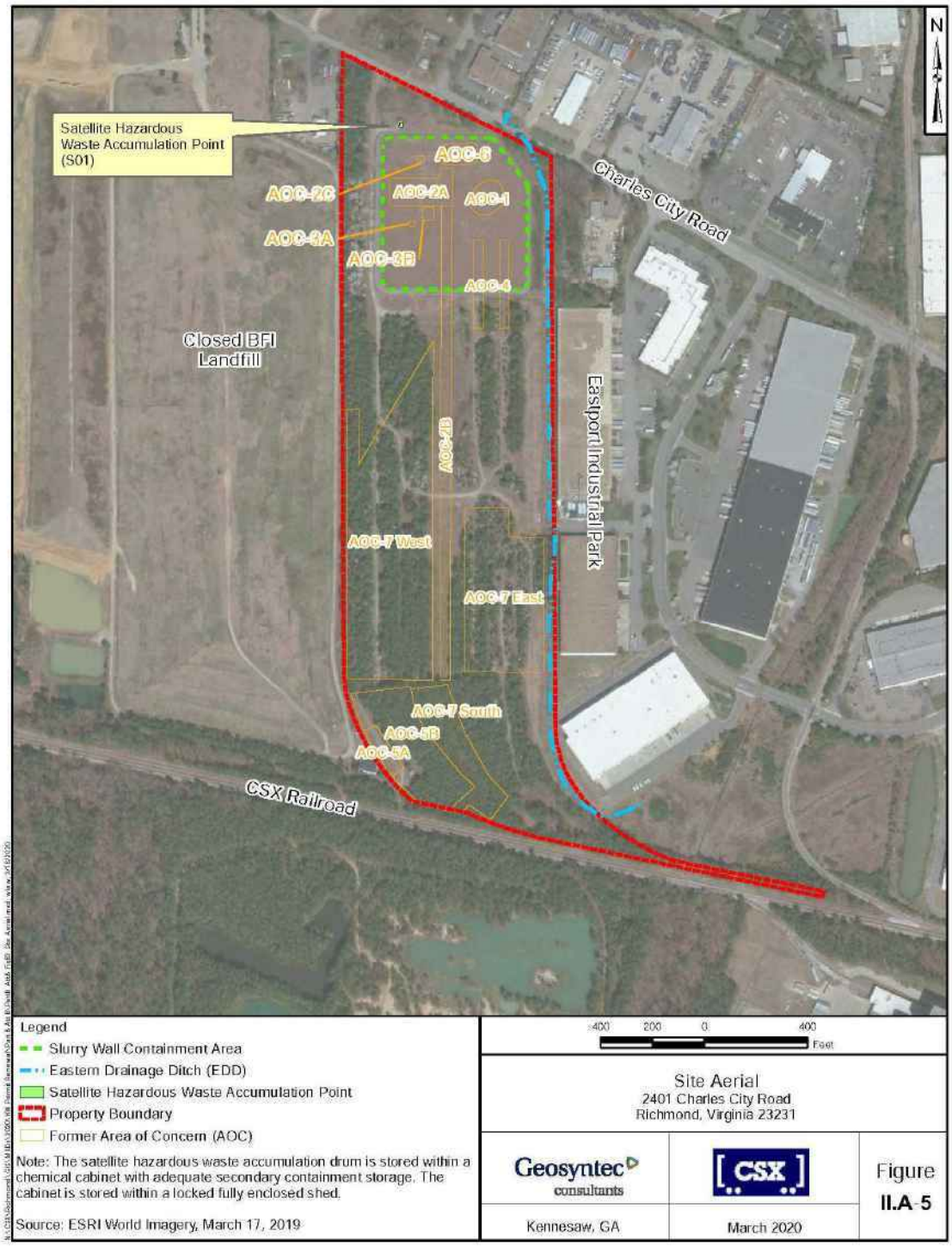
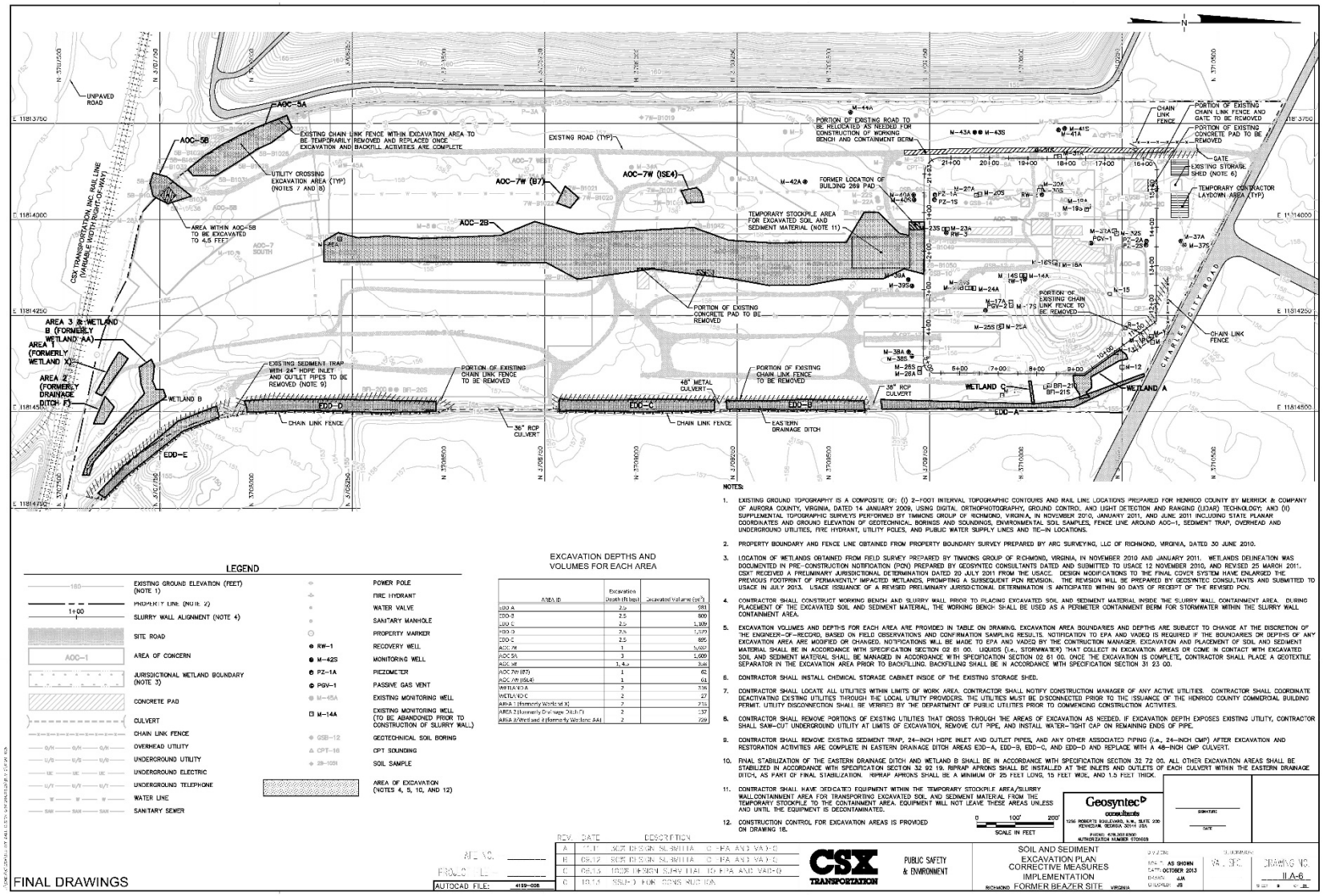


Figure II.A-6: Soil and Sediment Excavation Plan



NOTES:

1. EXISTING GROUND TOPOGRAPHY IS A COMPOSITE OF: (I) 2-FOOT INTERVAL TOPOGRAPHIC CONTOURS AND RAIL LINE LOCATIONS PREPARED FOR HENRICO COUNTY BY MERRICK & COMPANY OF AURORA COUNTY, VIRGINIA, DATED 14 JANUARY 2009, USING DIGITAL ORTHOPHOTOGRAPHY, GROUND CONTROL AND LIGHT DETECTION AND RANGING (LIDAR) TECHNOLOGY; AND (II) SUPPLEMENTAL TOPOGRAPHIC SURVEYS PERFORMED BY TIMMONS GROUP OF RICHMOND, VIRGINIA, IN NOVEMBER 2010, JANUARY 2011, AND JUNE 2011 INCLUDING STATE PLANAR COORDINATES AND GROUND ELEVATION OF GEOTECHNICAL BORINGS AND SOUNDINGS, ENVIRONMENTAL SOIL SAMPLES, FENCE LINE AROUND AOC-1, SEDIMENT TRAP, OVERHEAD AND UNDERGROUND UTILITIES, FIRE HYDRANT, UTILITY POLES, AND PUBLIC WATER SUPPLY LINES AND TIE-IN LOCATIONS.
2. PROPERTY BOUNDARY AND FENCE LINE OBTAINED FROM PROPERTY BOUNDARY SURVEY PREPARED BY ARC SURVEYING, LLC OF RICHMOND, VIRGINIA, DATED 30 JUNE 2010.
3. LOCATION OF WETLANDS OBTAINED FROM FIELD SURVEY PREPARED BY TIMMONS GROUP OF RICHMOND, VIRGINIA, IN NOVEMBER 2010 AND JANUARY 2011. WETLANDS DELINEATION WAS DOCUMENTED IN PRE-CONSTRUCTION NOTIFICATION (PCN) PREPARED BY GEOSYNTEC CONSULTANTS DATED AND SUBMITTED TO USACE 12 NOVEMBER 2010, AND REVISED 25 MARCH 2011. CSX[T] RECEIVED A PRELIMINARY JURISDICTIONAL DETERMINATION DATED 20 JULY 2011 FROM THE USACE. DESIGN MODIFICATIONS TO THE FINAL COVER SYSTEM HAVE ENLARGED THE PREVIOUS FOOTPRINT OF PERMANENTLY IMPACTED WETLANDS, PROMPTING A SUBSEQUENT PCN REVISION. THE REVISION WILL BE PREPARED BY GEOSYNTEC CONSULTANTS AND SUBMITTED TO USACE IN JULY 2013. USACE ISSUANCE OF A REVISED PRELIMINARY JURISDICTIONAL DETERMINATION IS ANTICIPATED WITHIN 90 DAYS OF RECEIPT OF THE REVISED PCN.
4. CONTRACTOR SHALL CONSTRUCT WORKING BENCH AND SLURRY WALL PRIOR TO PLACING EXCAVATED SOIL AND SEDIMENT MATERIAL INSIDE THE SLURRY WALL CONTAINMENT AREA. DURING PLACEMENT OF THE EXCAVATED SOIL AND SEDIMENT MATERIAL, THE WORKING BENCH SHALL BE USED AS A PERIMETER CONTAINMENT BERM FOR STORMWATER WITHIN THE SLURRY WALL CONTAINMENT AREA.
5. EXCAVATION VOLUMES AND DEPTHS FOR EACH AREA ARE PROVIDED IN TABLE ON DRAWING. EXCAVATION AREA BOUNDARIES AND DEPTHS ARE SUBJECT TO CHANGE AT THE DISCRETION OF THE ENGINEER-OF-RECORD, BASED ON FIELD OBSERVATIONS AND CONFIRMATION SAMPLING RESULTS. NOTIFICATION TO EPA AND VADEQ IS REQUIRED IF THE BOUNDARIES OR DEPTHS OF ANY EXCAVATION AREA ARE MODIFIED OR CHANGED. NOTIFICATIONS WILL BE MADE TO EPA AND VADEQ BY THE CONTRUCTION MANAGER. EXCAVATION AND PLACEMENT OF SOIL AND SEDIMENT MATERIAL SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02 61 00. LIQUIDS (i.e., STORMWATER) THAT COLLECT IN EXCAVATION AREAS OR COME IN CONTACT WITH EXCAVATED SOIL AND SEDIMENT MATERIAL SHALL BE MANAGED IN ACCORDANCE WITH SPECIFICATION SECTION 02 61 00. ONCE THE EXCAVATION IS COMPLETE, CONTRACTOR SHALL PLACE A GEOTEXTILE SEPARATOR IN THE EXCAVATION AREA PRIOR TO BACKFILLING. BACKFILLING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 31 23 00.
6. CONTRACTOR SHALL INSTALL CHEMICAL STORAGE CABINET INSIDE OF THE EXISTING STORAGE SHED.
7. CONTRACTOR SHALL LOCATE ALL UTILITIES WITHIN LIMITS OF WORK AREA. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER OF ANY ACTIVE UTILITIES. CONTRACTOR SHALL COORDINATE DEACTIVATING EXISTING UTILITIES THROUGH THE LOCAL UTILITY PROVIDERS. THE UTILITIES MUST BE DISCONNECTED PRIOR TO THE ISSUANCE OF THE HENRICO COUNTY COMMERCIAL BUILDING PERMIT. UTILITY DISCONNECTION SHALL BE VERIFIED BY THE DEPARTMENT OF PUBLIC UTILITIES PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
8. CONTRACTOR SHALL REMOVE PORTIONS OF EXISTING UTILITIES THAT CROSS THROUGH THE AREAS OF EXCAVATION AS NEEDED. IF EXCAVATION DEPTH EXPOSES EXISTING UTILITY, CONTRACTOR SHALL SAW-CUT UNDERGROUND UTILITY AT LIMITS OF EXCAVATION, REMOVE CUT PIPE, AND INSTALL WATER-TIGHT CAP ON REMAINING ENDS OF PIPE.
9. CONTRACTOR SHALL REMOVE EXISTING SEDIMENT TRAP, 24-INCH HDPE INLET AND OUTLET PIPES, AND ANY OTHER ASSOCIATED PIPING (i.e., 24-INCH CMP) AFTER EXCAVATION AND RESTORATION ACTIVITIES ARE COMPLETE IN EASTERN DRAINAGE DITCH AREAS EDD-A, EDD-B, EDD-C, AND EDD-D AND REPLACE WITH A 48-INCH CMP CULVERT.
10. FINAL STABILIZATION OF THE EASTERN DRAINAGE DITCH AND WETLAND B SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 32 72 00. ALL OTHER EXCAVATION AREAS SHALL BE STABILIZED IN ACCORDANCE WITH SPECIFICATION SECTION 32 92 19. RIPRAP APRONS SHALL BE INSTALLED AT THE INLETS AND OUTLETS OF EACH CULVERT WITHIN THE EASTERN DRAINAGE DITCH, AS PART OF FINAL STABILIZATION. RIPRAP APRONS SHALL BE A MINIMUM OF 25 FEET LONG, 15 FEET WIDE, AND 1.5 FEET THICK.
11. CONTRACTOR SHALL HAVE DEDICATED EQUIPMENT WITHIN THE TEMPORARY STOCKPILE AREA/SLURRY WALL CONTAINMENT AREA FOR TRANSPORTING EXCAVATED SOIL AND SEDIMENT MATERIAL FROM THE TEMPORARY STOCKPILE TO THE CONTAINMENT AREA. EQUIPMENT WILL NOT LEAVE THESE AREAS UNLESS AND UNTIL THE EQUIPMENT IS DECONTAMINATED.
12. CONSTRUCTION CONTROL FOR EXCAVATION AREAS IS PROVIDED ON DRAWING 18.

LEGEND

180	EXISTING GROUND ELEVATION (FEET) (NOTE 1)
	PROPERTY LINE (NOTE 2)
1+00	SLURRY WALL ALIGNMENT (NOTE 4)
	SITE ROAD
AOC-1	AREA OF CONCERN
	JURISDICTIONAL WETLAND BOUNDARY (NOTE 3)
	CONCRETE PAD
	CULVERT
	CHAIN LINK FENCE
O/H	OVERHEAD UTILITY
U/G	UNDERGROUND UTILITY
UE	UNDERGROUND ELECTRIC
U/T	UNDERGROUND TELEPHONE
W	WATER LINE
SAN	SANITARY SEWER
	POWER POLE
	FIRE HYDRANT
	WATER VALVE
	SANITARY MANHOLE
	PROPERTY MARKER
RW-1	RECOVERY WELL
M-42S	MONITORING WELL
PZ-1A	PIEZOMETER
PGV-1	PASSIVE GAS VENT
M-45A	EXISTING MONITORING WELL
M-14A	EXISTING MONITORING WELL (TO BE ABANDONED PRIOR TO CONSTRUCTION OF SLURRY WALL)
GSB-12	GEOTECHNICAL SOIL BORING
CPT-16	CPT SOUNDING
SB-1031	SOIL SAMPLE
	AREA OF EXCAVATION (NOTES 4, 5, 10, AND 12)

EXCAVATION DEPTHS AND VOLUMES FOR EACH AREA

AREA ID	Excavation Depth (ft bgs)	Excavated Volume (yd³)
EDD-A	2.5	581
EDD-B	2.5	800
EDD-C	2.5	1,109
EDD-D	2.5	1,029
EDD-E	2.5	895
AOC-2B	1	1,660
AOC-5A	3	1,600
AOC-5B	1.4	348
AOC-7W (B7)	1	62
AOC-7W (ISE4)	1	61
WETLAND A	2	336
WETLAND C	2	27
AREA 1 (formerly Wetland X)	2	234
AREA 2 (formerly Drainage Ditch F)	2	237
AREA 3 (Wetland B (formerly Wetland AA)	2	729

Geosyntec consultants
1255 ROBERTS BOULEVARD, N.W., SUITE 200
KENNESAW, GEORGIA 30144 USA
PHONE: 678.202.8900
AUTHORIZATION NUMBER 000468

SCALE IN FEET 0 100' 200'

REV.	DATE	DESCRIPTION
A	[illegible]	[illegible]
B	[illegible]	[illegible]
C	[illegible]	[illegible]
D	[illegible]	[illegible]

CSX TRANSPORTATION

PUBLIC SAFETY & ENVIRONMENT

SOIL AND SEDIMENT EXCAVATION PLAN
CORRECTIVE MEASURES IMPLEMENTATION
RICHMOND FORMER BEAZER SITE VIRGINIA

SCALE: AS SHOWN
DATE: OCTOBER 2013
DRAWN: JLM
CHECKED: JS

DRAWING NO. II.A-6

FINAL DRAWINGS

AUTOCAD FILE: 4199-008

Figure II.A-7: Final Cover Grading Plan

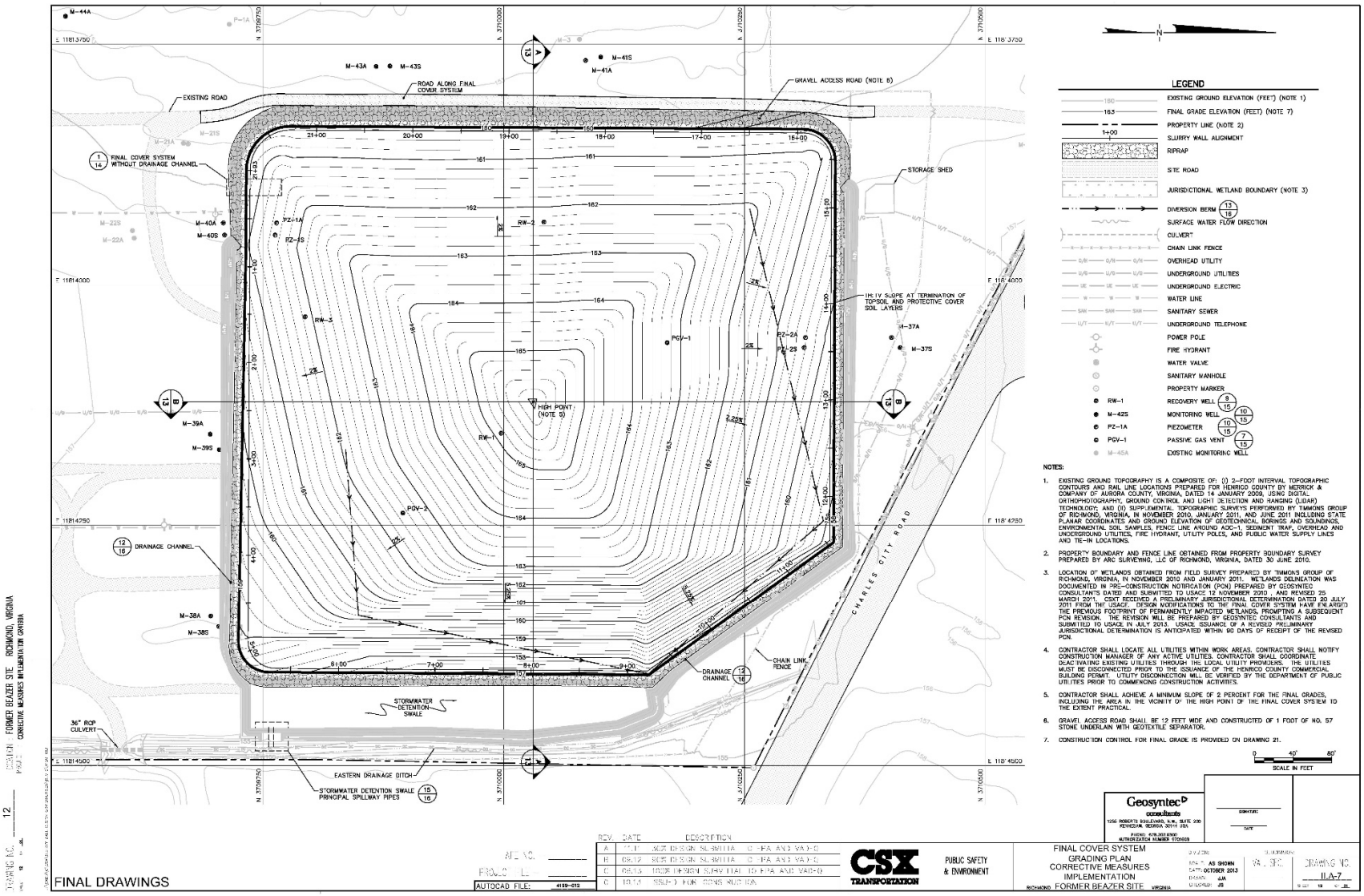
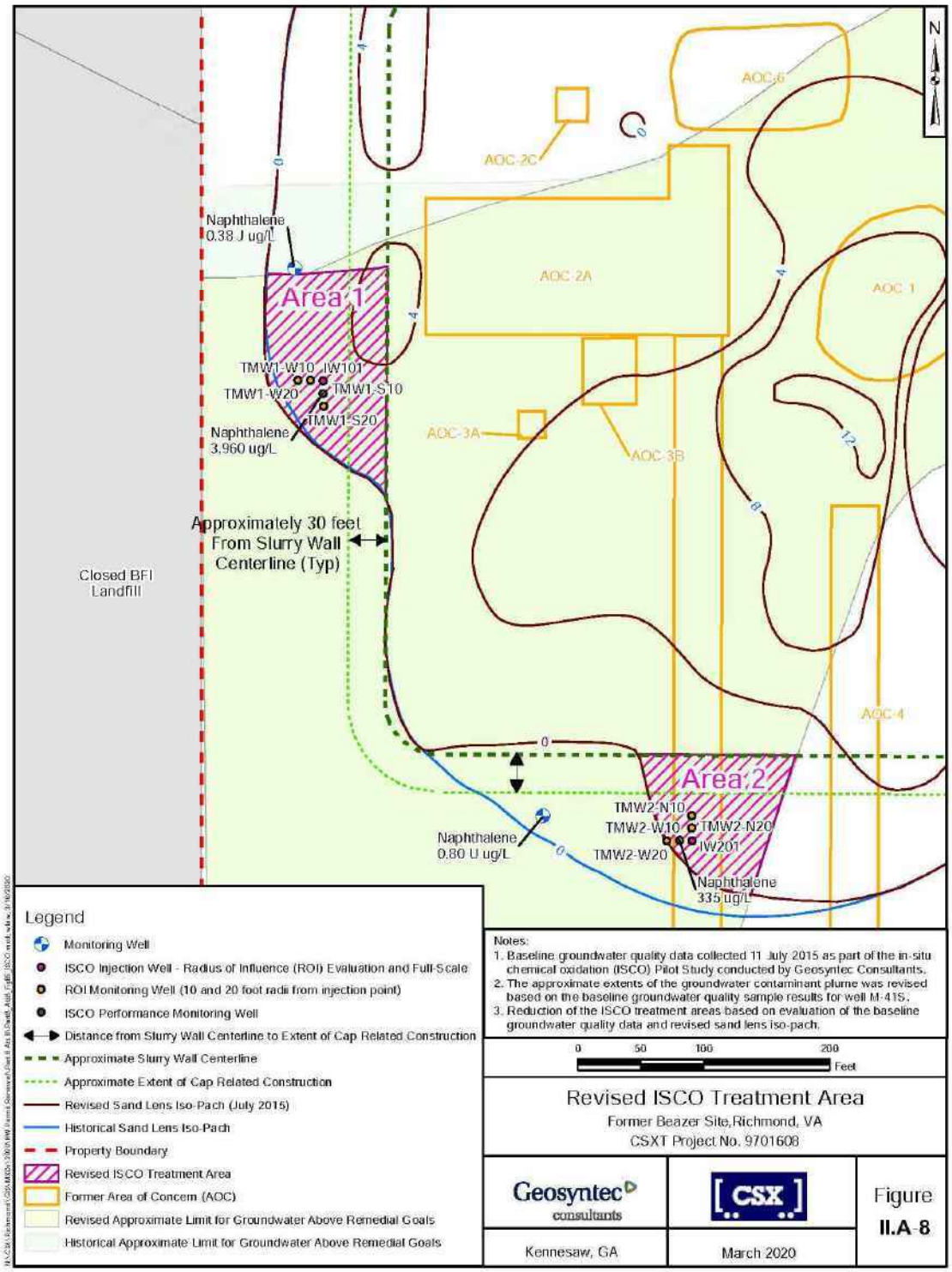


Figure II.A-8: Revised ISCO Treatment Area



ATTACHMENT II.B - FACILITY BACKGROUND, SWMUS AND AOCS, AND ENVIRONMENTAL HISTORY

II.B.1. Facility Description

The former Koppers Wood Treating. Facility (hereinafter referred to as the "Facility or Site") is located in the eastern part of Henrico County, Virginia approximately 2.5 miles east of the City of Richmond, Virginia as shown in Permit Attachment II.A, Figure II.A-1. The Site is comprised of approximately 52 acres and is within a general industrial zone between Charles City Road and a double track rail line owned by CSX Transportation, Inc. (CSXT)

Koppers Company, Inc. (Koppers) acquired the Site in 1948 from the Chesapeake and Ohio Railroad and initiated production of creosote-treated railroad ties at the Site in 1949. Wood railroad ties were pressure treated with creosote to retard decay of the wood. Other wood treating methods were not used at the Site. Operations at the Site ceased in 1983, and the plant was decommissioned and equipment was removed thereafter. Koppers continued to own the Site after the wood treating operations terminated.

On 20 June 1988, BNS Acquisitions, Inc. (BNS Acquisitions), a Delaware corporation and a wholly-owned subsidiary of Beazer PLC, acquired more than 90 percent of the outstanding common stock of Koppers. BNS Acquisitions acquired the balance of the common shares of Koppers on 14 November 1988. On 20 January 1989, BNS Acquisitions merged with Koppers, and on 26 January 1989, Koppers Company, Inc. was renamed Beazer Materials and Services, Inc. (BMS). Beazer Materials and Services, Inc. subsequently changed its name to Beazer East, Inc. (Beazer) on 16 April 1990. On 21 March 1997, Beazer transferred title to the Site to CSXT.

In connection with its operations at the Site, Koppers submitted to the United States Environmental Protection Agency (EPA) a Part A Permit Application pursuant to the Resource Conservation and Recovery Act (RCRA) in October 1980 for a hazardous waste storage area and a surface impoundment at the Site. EPA granted interim status for these hazardous waste management units. Koppers thereafter closed the hazardous waste management units. Koppers submitted a certification of closure for the hazardous waste storage area and the surface impoundment to the Virginia Bureau of Hazardous Waste Management (subsequently renamed and referred to in the remainder of this document as the Virginia Department of Environmental Quality (DEQ)) on 24 May 1985. The surface impoundment was closed in accordance with requirements applicable to land disposal units. As part of closure of the surface impoundment, sludge that had accumulated in the surface impoundment plus one foot of soil liner material from the surface impoundment was removed and disposed of at an appropriate off-site facility. A cap designed to meet the requirements for a RCRA landfill was

then constructed over the surface impoundment. DEQ approved the closure of both hazardous waste management units in a letter dated 16 July 1985.

Following closure of the surface impoundment, Koppers submitted a post-closure permit application (PCPA) for the surface impoundment to DEQ on 23 November 1985. Revisions to this PCPA were submitted to DEQ during March 1986 and March 1987. Koppers submitted a revised PCPA to DEQ during June 1988. The revised PCPA was prepared by Keystone Environmental Resources (Keystone). During 1989, the PCPA was revised again by Keystone, this time on behalf of BMS. A revised version of the PCPA was submitted to DEQ by BMS during December 1989. Minor revisions to the PCPA were subsequently submitted to DEQ on 25 June 1992 by Beazer (formerly BMS).

During approximately the same time period that Beazer was revising the PCPA for the closed surface impoundment, Beazer entered into an Administrative Order of Consent (the "Consent Order) with EPA on 24 April 1991 pursuant to Section 3008(h) of RCRA. The Consent Order required Beazer to evaluate environmental conditions at the Site and undertake corrective measures for the Site pursuant to the corrective action program under RCRA.

After the transfer of the Site from Beazer to CSXT in 1997, CSXT submitted to DEQ an updated RCRA Part A Permit Application on 18 January 1998 as requested by DEQ. Thereafter, the obligations under the Consent Order were transferred from Beazer to CSXT effective 22 April 1998. In addition, CSXT submitted to DEQ a revised and updated PCPA for the closed surface impoundment at the Site on 31 July 1998. DEQ subsequently issued a post-closure permit to CSXT for the closed surface impoundment which became effective on 5 May 2000. CSXT then implemented post-closure care of the closed surface impoundment pursuant to the post-closure permit.

Implementation of the RCRA corrective action process at the Site pursuant to the Consent Order proceeded in multiple phases. In compliance with the terms of the Consent Order, a final RCRA Facility Investigation (RFI) report was submitted to EPA on 29 October 1996, which EPA thereafter approved by letter dated 27 January 1997. CSXT also completed a Corrective Measures Study (CMS) for the Site and undertook both human health and ecological risk assessments of conditions at the Site. The work culminated in the submission of a final CMS report to EPA and DEQ on 19 June 2009. EPA approved the final version of the CMS report on 13 July 2009. Thereafter, EPA issued a Statement of Basis on 29 July 2009 summarizing the proposed corrective measures for the Site selected by EPA. After seeking public comments regarding the Statement of Basis, EPA issued a Final Decision and Response to Comments (FDRTC) document selecting the final corrective measures for the Site on 21 December 2009.

In addition to administering the requirements of the Consent Order, DEQ and

EPA have historically coordinated overlapping regulatory authority for the closed surface impoundment and other areas of concern (AOCs) at the Site. On 30 October 2009, Geosyntec submitted to DEQ on behalf of CSXT a permit application to renew the hazardous waste management permit for post-closure activities relating to the closed hazardous waste surface impoundment at the Site. The closed surface impoundment is situated among several other AOCs at the Site. Both the closed surface impoundment and the other AOCs at the Site contributed to releases of chemicals of concern (COCs) identified at the Site. Accordingly, with concurrence from EPA and as authorized pursuant to 40 CFR. §§ 264.90(f) and 264.110(c), incorporated by reference in Virginia's hazardous waste management regulations at 9 Va. Admin. Code § 20-60-264, the planned site-wide corrective measures described in the FDRTC document were incorporated into the new hazardous waste management permit (referred to hereinafter as the "Corrective Action Permit) issued by DEQ to CSXT on 17 August 2010. As such, the site-wide corrective measures selected by EPA as reflected in the Statement of Basis and the FDRTC document were implemented in lieu of post-closure care activities specified for the closed surface impoundment in the previous hazardous waste management permit dated 5 May 2000. The Corrective Action Permit became effective on 16 September 2010.

II.B.2. **Overview of Site Conditions**

II.B.2.a. Surrounding Land Use

The current land uses surrounding the Site consist of mixed agricultural, light industrial, business, and residential uses as shown on Permit Attachment II.A, Figure II.A-2. Charles City Road borders the Site on the north, followed by a mixture of commercial and residential properties. Undeveloped property owned by CSXT borders the Site on the east along the northernmost 600 feet of the boundary of the Site. The Eastport Industrial Park lies south of this undeveloped parcel and borders the Site to the east. CSXT's railroad right-of-way borders the Site on the south. To the south of the railroad right-of-way are former areas of sand and gravel mining, which consist of abandoned borrow pits filled with water. A closed BFI Waste Systems, Inc. (BFI) landfill borders the western boundary of the Site along all but 450 feet on the north end of the Site. The neighboring property in this area is owned by S&M Properties, LLC.

II.B.2.b. Drainage Features and Hydrogeology

The Site is generally flat and slopes from north to south. Permit Attachment II.A, Figure II.A-1 and II.A-4 present topographic maps of the Site and immediate surrounding areas. The most prominent drainage feature at the Site is a manmade, intermittently-flowing ditch referred to as the Eastern Drainage Ditch (EDD) that extends north to south along the eastern border of the Site. Originally, a series of drainage ditches were utilized to convey stormwater runoff across the Site.

However, after the termination of wood treating operations, these drainage ditches were no longer maintained and became overgrown with vegetation. The EDD flows to the south and eventually discharges into a stormwater basin located at the southern end of the Eastport Industrial Park.

The Site is located in the Atlantic Coastal Plain physiographic province and is several miles east of the Fall Line, which marks the boundary between the Coastal Plain and Piedmont physiographic provinces. The Site is underlain by approximately 250 to 275 feet of unconsolidated clay, silt, sand, and gravel deposits. The two geologic formations relevant to the corrective measures selected for the Site are the Bacons Castle and Calvert Formations. The uppermost formation (the Bacons Castle Formation) consists of an upper zone of predominantly clay and silts from the ground surface to approximately 20 feet below ground surface (bgs) followed by a lower zone consisting primarily of a sand and gravel unit that extends to a maximum depth of approximately 45 feet bgs. The Calvert Formation, consisting of plastic clay to sandy clay, lies beneath the Bacons Castle Formation and extends to an approximate depth of 95 feet bgs.

Three hydrogeologic zones have been defined at the Site. The Yorktown-Eastover water-bearing zone is the uppermost (e.g., surficial) water-bearing zone beneath the Site and coincides with the Bacons Castle Formation. The surficial water-bearing zone has been divided into two groundwater flow zones – a shallow zone (the “S” zone) that corresponds with the clay/silt/sand unit located from the ground surface to approximately 20 feet bgs and a deeper zone (the “A” zone) located from approximately 20 feet bgs to 45 feet bgs that corresponds with the sand and gravel unit discussed above. The “S” and “A” zones have been shown to be connected hydraulically. The uppermost water-bearing zone (consisting of both the “S” zone and “A” zone) at the Site is underlain by the Calvert Confining Unit composed of clay to sandy clay and is defined as the "B" zone at the Site. Given its low permeability, the “B” zone serves as a confining unit beneath the “A” zone.

The “S” zone acts as a confining layer above the underlying “A” zone. However, in the northern part of the Site, a localized clayey sand to well-sorted sand unit is present within the “S” zone underneath the former wood treatment area, now enclosed within the slurry wall and the engineered cover system. The localized clayey sand unit extends outside of the slurry wall for approximately 100 feet along portions of the western side of the slurry wall and approximately 140 feet along portions of the southern side of the slurry wall. Elsewhere at the Site, the “S” zone is comprised predominantly of clay.

The groundwater flow direction in the “A” zone at the Site is generally toward the south. Groundwater flow in both the “S” and “A” zones is influenced by a slurry wall that was installed in the mid-1980s around the BFI landfill situated immediately west of the Site. The slurry wall is located approximately 10 to 20

feet west of the property line between the BFI landfill and the Site and was installed and keyed into the low-hydraulic conductivity clay of the Calvert Confining Unit (the "B" zone at the Site), thereby serving as impermeable barrier for groundwater flow between the BFI landfill and the Site, and preventing westerly flow of groundwater beneath the Site.

II.B.3. **Summary of Environmental Investigations and Cleanup Activities**

Based on a review of files maintained by DEQ and EPA Region III, a number of solid waste management units (SWMUs) and Areas of Concern (AOCs) were identified at the Site. A layout map for the Site is included as Permit Attachment II.A, Figure II.A-5, showing the location of each SWMU and AOC. Permit Attachment II.B, Table II.B-1, lists each SWMU and AOC.

II.B.3.a. RCRA Facility Investigation Activities

1988 RCRA Facility Assessment (RFA)

In 1988, DEQ conducted a RCRA Facility Assessment (RFA) of the Site. The RFA identified eight (8) SWMUs and four (4) additional potential AOCs identified by EPA.

RCRA Facility Investigation

During the performance of the Phase I and Phase II RFI, the identified eight (8) SWMUs and four (4) potential AOCs identified in the 1988 RFA were grouped into seven (7) AOCs that were based on conditions at the Facility, media and constituents of interest, and proximity of the units. Permit Attachment II.A, Figure II.A-5 displays the location of each AOC and Permit Attachment II.B, Table II.B-1, provides a list of each identified AOC.

Table II.B-1: List of AOCS

Identification	SWMU Description
AOC 1	Closed Surface Impoundment
AOC 2	Creosote Unloading Area and Treatment Area (2A), Drip Tracks (2B), and Former Tanks (2C)
AOC 3	Container Storage Areas No. 1 (3A) and No. 2 (3B)
AOC 4	Temporary Drum Storage Areas
AOC 5	Landfill (5A) and Landfarm (5B)
AOC 6	Water Supply Pond
AOC 7	Treated Wood Storage Areas

Note: Except for inspection and maintenance of completed engineering controls, free product recovery activities at three recovery wells, and long-term groundwater monitoring, no AOC requires any further action.
The information concerning the various AOCs presented below reflects historical operations and conditions. The corrective measures that have been completed at the Site to address environmental conditions associated with the AOCs have significantly altered those conditions as described in subsequent sections of this document.

AOC 1 – Closed Surface Impoundment

AOC 1 is the former surface impoundment which was closed as a RCRA regulated land-based unit. The former surface impoundment was located in the northeastern portion of the Site just south of Charles City Road. The surface impoundment was in operation at the Site from 1948 to 1983. It had an estimated design capacity of 5,000 gallons and an approximate diameter of 180 feet (based on a closure survey). The former surface impoundment is estimated to have been six to eight feet deep at its deepest point based on available information. A dike of soil surrounded the surface impoundment and three aboveground tanks were located on an island in the center of the surface impoundment. During periods of operation, the area surrounding the tanks was filled with varying amounts of wastewater.

The surface impoundment was used as a spray-evaporation impoundment to complete the separation of the oil phase and the water phase during operation of the wastewater treatment system at the Site. Hazardous waste classified as K001 waste was generated and accumulated at the bottom of the surface impoundment during its operation.

As part of closure activities, sludge remaining in the surface impoundment plus one foot of soil liner material was removed for appropriate off-site disposal. Dike materials were then placed within the surface impoundment. A RCRA multi-layer landfill cap with a geosynthetic liner was placed over the unit, and the area was graded and seeded to minimize run-on, infiltration, and erosion. Closure of the surface impoundment was completed and approved by DEQ on 16 July 1985. AOC 1 is within the slurry wall containment area beneath an engineered cap that was constructed as part of the final corrective measures for the Site.

AOC 2A – Creosote Unloading Area and Treatment Area

AOC 2A is located in the northwestern portion of the Site and consists of a former creosote unloading area, control building, and treatment area. The former control building was situated between the former unloading area to the west and the former treatment area to the east. In the creosote unloading area, creosote-containing preservative products were pumped from rail cars into three vertical

holding tanks located within a bermed area on the west side of the control building. The creosote unloading area was approximately 100 feet by 70 feet in size. This area was used during the active life of the wood treating plant from 1948 through 1983. The rail line leading to this area was removed following the termination of wood treating operations and decommissioning of the plant.

In the treatment area, wood was treated in two cylinders using creosote preservation products. The elongated treatment cylinders sat on saddles within a concrete basin. The cylinders and basin were not covered by a roof or other structure. Piping leading to and from, and between treatment cylinders was present within the concrete basin. Creosote was transferred to the cylinders through a series of pipes operated from the control building. Wastewater generated during the treatment process was discharged into the surface impoundment. The holding tanks, equipment, piping, and pressure treating cylinders were removed during decommissioning of the plant; however, the concrete basin was not removed.

As described in the Consent Order, spillage reportedly occurred in the creosote unloading area during the unloading of creosote-containing preservative products from rail tank cars. Interim measures were conducted in the creosote unloading area in 1984 under the oversight of DEQ and included excavation of approximately 400 cubic yards of creosote impacted soil from AOC 2A at the time of closure of the surface impoundment (AOC 1). Impacted soil was excavated from an area approximately 60 feet by 50 feet in size to a depth of 3 to 4 feet bgs and properly disposed of offsite. This area was capped with clean backfill and re-vegetated with grass.

The control building was demolished as part of building demolition activities that took place at the Site during October and November 2009 in accordance with the Building Demolition Work Plan as approved by EPA on 13 July 2009. AOC 2A is within the slurry wall containment area beneath an engineered cap that was constructed as part of the final corrective measures for the Site.

AOC 2B – Drip Tracks

AOC 2B consists of former drip tracks that were located directly south of the treatment area (AOC 2A) and extended approximately 1,850 feet south from the treatment area. After treatment in the pressure cylinders, the treated wood was placed on small rail cars that were moved along the tracks that led south from the pressure cylinders. Excess preservative remaining on the surface of the wood likely dripped off and onto the ground along the length of the tracks. The railroad lines comprising the drip tracks were removed during decommissioning of the plant. The northern portions of AOC 2B are within the slurry wall containment area beneath an engineered cap that was constructed as part of the final corrective measures for the Site. Surface soils in the reminder of the drip track were

excavated and placed in the slurry wall containment area beneath an engineered cap that was constructed as part of the final corrective measures for the Site.

AOC 2C – Former Tanks

AOC 2C consists of two former 10,000-gallon underground storage tanks (USTs) that were located in the creosote unloading area and treatment area (AOC 2A) and one small aboveground storage tank (AST) that was located at the former pump house. The USTs were reportedly used to supply heating fuel to the adjacent "boiler house" building. The USTs were excavated and the area backfilled after wood treating operations ceased in 1983. Following excavation, holes were cut into the tanks in anticipation of disposal but the tanks remained at the Site until 1995 when they were disposed of by Beazer.
The AST consisted of a 50-gallon aboveground fuel storage tank that was mounted to the outside south wall of the pump house approximately four feet above the ground surface. The AST was emptied during decommissioning of the plant. The AST was removed and properly disposed of off-site when the pump house was demolished as part of demolition activities in October and November 2009 conducted in accordance with the approved Building Demolition Work Plan. AOC 2C is within the slurry wall containment area beneath an engineered cap that was constructed as part of the final corrective measures for the Site.

AOC 3A – Container Storage Area No. 1

AOC 3A consists of an area where a cinder block building approximately 20 feet by 20 feet in size was located in the northern portion of the Site, south of the former creosote unloading area and treatment area (AOC 2A), and southwest of the boiler house and container storage area no. 2 (AOC 3B). The cinder block building was constructed at approximately the same time that wood treating operations at the Site commenced. As described in the Consent Order, the cinder block building was used to store drums containing K001 hazardous waste, soils impacted with K001 hazardous waste, and creosote materials. The building was demolished as part of demolition activities in October and November 2009 conducted in accordance with the approved Building Demolition Work Plan. AOC 3A is within the slurry wall containment area beneath an engineered cap that was constructed as part of the final corrective measures for the Site.

AOC 3B – Container Storage Area No. 2

AOC 3B consists of an area where containers were stored in the southern half of the former boiler house building. AOC 3B is located in the northern portion of the Site adjacent to and south of the creosote unloading area and treatment area (AOC 2A). The former boiler house building was constructed of concrete block, was approximately 25 feet by 40 feet in size, and included two entrances. The primary entrance was a garage door, oversized for truck access, located on the

western side of the building. Secondary access was provided through an internal doorway within the boiler room along the east-west partition wall. Boiler room access was provided through openings along both the western and eastern sides of the building. The floor of the building was constructed of concrete with an internal, small inclined ramp located at the garage door entrance. The building was demolished as part of demolition activities in October and November 2009 conducted in accordance with the approved Building Demolition Work Plan. AOC 3B is within the slurry wall containment area beneath an engineered cap that was constructed as part of the final corrective measures for the Site.

AOC 4 – Temporary Drum Storage Areas

AOC 4 consists of two gravel-covered areas approximately 350 feet by 40 feet each in size that were used for temporary storage of drums containing sludge, soil, and water generated during closure of the former surface impoundment (AOC 1). AOC 4 is located adjacent to and south of the closed surface impoundment (AOC 1). Prior to use for temporary drum storage activities, the area comprising AOC 4 contained roadways that were used to provide access to untreated wood storage areas. The northern portions of AOC 4 are within the slurry wall containment area beneath an engineered cap that was constructed as part of the final corrective measures for the Site.

AOC 5 – Landfill and Landfarm Areas

AOC 5 consists of landfill (AOC 5A) and landfarm (AOC 5B) areas located adjacent to each other at the southwestern corner of the Site. These areas were reportedly used for placement and land farming of sludge from wastewater treatment that took place in connection with wood treating operations. Debris, yard waste, and track cleanup materials also may have been placed in the landfill area. The landfill and landfarm areas were excavated and placed in the slurry wall containment area beneath an engineered cap that was constructed as part of the final corrective measures for the Site.

AOC 6 – Water Supply Pond

AOC 6 consists of a former earthen pond that was located directly north of the former treatment area (AOC 2A) and the closed surface impoundment (AOC 1). The pond was approximately 130 feet by 80 feet in size. Water was present in the pond year round with a typical depth of four feet. An earthen berm and a security fence surrounded the pond.

When large volumes of water were required for the wood treatment process, water would be pumped from the water supply pond to the treatment area. Water from the onsite production well was used to maintain water supplies in the pond. Historical aerial photographs show that the pond was present at the Site prior to

1953. AOC 6 is within the slurry wall containment area beneath an engineered cap that was constructed as part of the final corrective measures for the Site.

AOC 7 – Treated Wood Storage Areas

AOC 7 consists of three areas located in the central and southern portions of the Site that were used to store treated and untreated wood. The wood storage areas encompassed three sets of rail tracks along the western boundary of the Site that continued through to the south end of the Site. The rail tracks were removed following termination of wood treating operations.

A review of historical aerial photographs during the development of the work plan for the RFI revealed that treated wood was stored in AOC 7 West and AOC 7 South while untreated wood was stored in AOC 7 East. AOC 7 South is co-located with AOC 5B (landfarm.) Targeted surface soils in the treated wood storage area were excavated and placed in the slurry wall containment area beneath an engineered cap that was constructed as part of the final corrective measures for the Site. The areas comprising AOC 7 are flat and currently covered with gravel, trees and other types of vegetation.

In compliance with the Consent Order, a site-wide RFI was conducted to investigate potential environmental impacts in the areas of the seven AOCs at the Site from constituents related to past wood treating operations. During the RFI, surface soil (defined as soil from the ground surface to one foot bgs), subsurface soil (defined as soil at depths greater than one foot bgs), shallow and deep groundwater, surface water, and sediments were sampled to assess potential impacts from former wood treating operations at the Site. The samples were typically analyzed for polynuclear aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and acid extractable phenolic compounds (phenols). A final version of the RFI report for the Site was submitted to EPA on 29 October 1996 and combined the contents of the Phase I and II RFI reports that had been previously submitted to EPA in 1994 and 1995, respectively. EPA approved the final version of the RFI report in a letter dated 27 January 1997.

Based on the data and information contained in the RFI report, a human health risk assessment was initially performed in 1998 to establish numerical remedial goals for soil (including sediment) and groundwater. A human health risk assessment (HHRA) report was submitted to EPA on or about 1 July 1998, and a revised version of that document was submitted to EPA on 19 July 1999. An ecological assessment report was also submitted to EPA on or about 5 August 1999. A revised baseline ecological risk assessment report was submitted to EPA on 26 May 2004.

The data and information contained in the RFI report combined with the results of the HHRA and the ecological assessment were used as the foundation for the

CMS for the Site. A CMS report establishing numerical remedial goals and evaluating corrective measures for the Site was submitted to EPA on 12 March 2001 and remained under review by EPA and DEQ until early 2006. After several iterations of comments by EPA and DEQ and associated responses, the final CMS report was submitted to EPA and DEQ on 19 June 2009. Based on the results of the CMS, the final corrective measures for the Site were selected by EPA and DEQ. Those final corrective measures are described in the Statement of Basis issued by EPA on 29 July 2009 and the FDRTC document issued by EPA on 21 December 2009. The final corrective measures for the Site are described in more detail in the next section of this document.

II.B.4. **Summary of Corrective Measures for the Site**

II.B.4.a. Remedy Overview

The final corrective measures selected by EPA for the Site focused on isolating source areas at the Site within a slurry wall containment area, excavating impacted soils and sediments from elsewhere at the Site and placing those soils and sediment within the slurry wall containment area, and covering the slurry wall containment area with a multi-layer engineered cap. Construction of the corrective measures was determined by EPA to be complete in 2016. Accordingly, only limited activities in connection with the corrective measures such as long-term groundwater monitoring are ongoing. The final corrective measures selected by EPA included the following remedial components to address environmental conditions at the Site and potential risks posed by those conditions:

- Demolition of buildings associated with historical operations at the Site in order to facilitate construction of corrective measures;

- Installation of a slurry wall to contain the source area at the Site (consisting of the former wood treatment area including AOC 1, AOC 2a, AOC 2b (northern portion), AOC 2c, AOC 3a, AOC 3b, AOC 4 (northern portion) and AOC 6) and to control groundwater migration away from the source area;

- Excavation in accordance with the procedures specified in the Statement of Basis and FDRTC document of targeted surface soils, subsurface soils, and sediments outside the slurry wall containment area containing COCs at concentrations above the numerical remedial goals for those COCs. The COCs in soils at the Site that were identified consist of PAHs and phenols. The numerical remedial goals were developed to address potential risks posed by the presence of COCs in soils at the Site and were approved by EPA and DEQ as part of the final CMS report for the Site;

- Consolidation of the excavated materials inside of the slurry wall containment area beneath an engineered cap to preclude future potential exposure to the

excavated materials by receptors;

- Restoration of excavated areas including backfilling those areas with clean soil and establishing vegetative cover in those areas, and restoration of the EDD area;

- Recovery of free product using recovery wells installed in the treatment area (AOC 2a) and in the northern portion of the drip track area (AOC 2b) to the extent practical;

- Treatment of COCs in groundwater outside of the slurry wall containment area using a combination of in-situ chemical oxidation (ISCO) and natural attenuation processes. The COCs designated for groundwater beneath the Site and associated remedial goals are included in Permit Attachment II.C;

- Dewatering, backfilling and capping of the former water supply pond (AOC 6);

- Implementation of institutional and engineering controls to prohibit activities that may interfere with the engineered remedy and to restrict or prevent activities that may result in unacceptable risks to human health and the environment; and

- Long-term monitoring and operation and maintenance (O&M) of components of the remedy.

II.B.4.b. Corrective Measures Design

In conjunction with applying for renewal of the Corrective Action Permit referenced above and based on the FDRTC document, Statement of Basis and the final CMS report, a Corrective Measures Implementation Plan (CMI Plan) was prepared for the Site. The final version of the CMI Plan was submitted to EPA and DEQ for review and approval on 16 August 2010, and the CMI Plan was thereafter approved for implementation by letter from EPA dated 27 August 2010. The CMI Plan described the various elements of the final corrective measures for the Site that had been selected by EPA and the steps to gather additional information necessary to enable CSXT to prepare the CMI design reports (the "CMI Design Reports) for the selected corrective measures.

In accordance with the CMI Plan, Geosyntec Consultants, Inc. (Geosyntec) submitted to EPA and DEQ, on behalf of CSXT, the Corrective Measures Implementation 30% Design Report (the "30% Design Report) for the Site on 4 November 2011. The 30% Design Report was the first of the CMI Design Reports contemplated by the CMI Plan. EPA provided final regulatory clarifications and approval of the 30% Design Report by letter dated 10 May

2012. Following submittal of the initial 30% Design Report, a Corrective Measures Implementation 90% Design Report (the "90% Design Report) was prepared. Final regulatory approval for the 90% Design Report was issued by EPA in an email dated 30 May 2013. A draft of the Corrective Measures Implementation 100% Design Report (the "100% Design Report) was submitted to EPA and DEQ on 28 June 2013. The final version of the 100% Design Report, incorporating minor editorial revisions, was submitted to EPA and DEQ on 17 October 2013 and was subsequently approved by EPA.

II.B.4.c. Corrective Measures Construction

As listed above, the first component of the selected corrective measures – demolition of buildings – was completed in 2009. A Building Demolition Work Plan was submitted to EPA and DEQ by Geosyntec on behalf of CSXT and approved by EPA and DEQ in July 2009. Following receipt of approval from EPA and DEQ, the Building Demolition Work Plan was implemented and building demolition activities were essentially completed by late November 2009. A Building Demolition Completion Report was submitted to EPA and DEQ on 29 June 2010.

During the demolition activities, stained concrete and soil were observed in and adjacent to the building pad of former Building 269. CSXT agreed to expand excavation of the former drip tracks (AOC-2B) to remove suspected impacted material. This expansion was incorporated into the final version of the 100% Design Report along with additional confirmation sampling points within AOC-2B.

A preconstruction meeting was held in October 2013 following EPA's approval of the 100% Design Report and selection of a contractor to construct the corrective measures. Following detailed planning, submittal reviews and approvals, and permitting, contractor mobilization occurred at the end of June 2014. Construction of the physical aspects of the corrective measures was substantially completed on 26 September 2015 and final stabilization was accepted by Henrico County, EPA and DEQ on 14 July 2016. A final CMI Construction Completion Report was submitted to EPA and DEQ on 15 September 2016. EPA then issued a "construction complete" letter for the project on 29 September 2016.

Permit Attachment II.A, Figure II.A-6 shows the area where the soil and sediment were excavated as part of implementing the corrective measures at the Site. Permit Attachment II.A, Figure II.A-7 shows the grading plan for the engineered cap that was constructed over the slurry wall containment area. The engineered cap contains and preclude exposures to excavated soils and sediment that were consolidated beneath the cap. Permit Attachment II.A, Figure II.A-8 shows the area where ISCO treatment was performed to treat COCs in groundwater in

isolated sand lenses in the "A" zone beneath the northern portion of the Site.

II.B.4.d. Post Construction Monitoring

Several long-term groundwater monitoring and O&M activities area being performed at the Site to monitor the protectiveness of the corrective measures. These tasks include the following:

- Long-term groundwater quality monitoring is being performed to evaluate the effectiveness of the corrective measures, and to assess monitored natural attenuation of COCs within the surficial hydrogeologic zones outside of the slurry wall containment area following the completion of the ISCO treatment process;

- The potential presence of free product in the form of dense non-aqueous phase liquid (DNAPL) is being monitored, and DNAPL, if present, is being removed using recovery wells located inside the footprint of the slurry wall containment area;

- Routine inspection and maintenance of constructed corrective measures is being performed; and

- Monitoring is being performed as necessary to ensure compliance with the institutional controls for the Site that are in place.

Details of the post construction monitoring program were included in Appendix H-1 in the final version of the 100% Design Report. Appendix H-1 (Post Construction Implementation Plan) is included in Permit Attachment II.A.

II.B.4.e. Institutional Controls

Following approval of the CMI Construction Completion Report, CSXT prepared an environmental covenant in accordance with the Virginia Uniform Environmental Covenants Act, § 10.1-1238, et seq. of the Code of Virginia. After the environmental covenant was executed by CSXT and DEQ, the environmental covenant was recorded by the Clerk of the Circuit Court for Henrico County on 2 October 2018. A copy of the environmental covenant is included in Permit Attachment II.D. The environmental covenant can be found at Book 0785, Page 2086 of the real property records of the Circuit Court for Henrico County. The current owner and future owners of the Site are obligated to comply with the activity and use limitations contained in the environmental covenant because the activity and use restrictions run with the land. These institutional controls are consistent with the provisions of the FDRTC document. The institutional controls utilized at the Site do the following:

- Prohibit the use of the Site for residential purposes (including improvements, structures or dwellings used for living accommodations such as single family homes, multiple family dwellings, detached housing, condominiums, apartment buildings, dormitories, senior citizen housing and other residential-style facilities; schools; day care centers; child care centers; hospitals; and in-patient health care facilities);

- Prohibit the use of groundwater from beneath the Site (except as may be necessary for the collection of groundwater samples and installation and use of groundwater monitoring, recovery, injection or extraction wells or similar devices used for or related to the performance of groundwater assessment or remediation activities);

- Restrict excavation of subsurface soils at the Site except in conformance with an appropriate soil management plan;

- Restrict activities that would interfere with or adversely impact the integrity of the slurry wall; and

- Require that the cap over the containment area be periodically inspected and maintained.

In addition to the environmental covenant for the Site, the foregoing institutional controls were described in the Corrective Action Permit issued by DEQ for the Site on 17 August 2010. CSXT also submitted to the Henrico County Health Department a "groundwater well exclusion area" notice for groundwater beneath the Site on 27 February 2019. The notice is designed to prohibit well drilling under Virginia's Private Well Regulations, 12 VAC 5 630-380. The notice described the nature and extent, including a map, survey description, and geographic coordinates of impacted groundwater underlying the Site. The notice will be updated every five years to coincide with the five-year status evaluation reports addressing the status and progress of the corrective measures pursuant to Permit Condition I.I.3 or such longer interval as may be approved by DEQ to reflect the latest information concerning the groundwater plume boundary. A copy of the notice as updated will be provided to EPA and DEQ.

ATTACHMENT II.C - CORRECTIVE ACTION GROUNDWATER REMEDIAL GOALS

Table C-1: Constituents of Concern (COCs) and the Remedial Cleanup Goals

Chemicals of Concern	MCL (ug/L)	Lowest Groundwater RG (ug/L)	Lowest Groundwater RG Receptor
Dissolved Metals			
Aluminum, dissolved	--	1,561	Child Resident
Arsenic, dissolved*	10		Lifetime Resident
Barium, dissolved*	2000		Child Resident
Beryllium, dissolved*	4		Child Resident
Chromium (VI), dissolved*	100 (total)		Child Resident
Iron, dissolved	--	3,824	Child Resident
Manganese, dissolved	--	74.2	Child Resident
Mercury, dissolved*	2		Child Resident
Selected Base Neutral Acid Extractables and Polynuclear Aromatic Hydrocarbons			
Acenaphthene	--	52.2	Child Resident
Acenaphthylene	--	25.6	Child Resident
Benzo(a)anthracene	--	0.02	Lifetime Resident
Benzo(a)pyrene*	0.2		Lifetime Resident
Benzo(b)fluoranthene	--	0.01	Lifetime Resident
Benzo(g,h,i)perylene	--	2.0	Child Resident
Benzo(k)fluoranthene	--	0.11	Lifetime Resident
Carbazole	--	10.5	Lifetime Resident
Chrysene	--	1.7	Lifetime Resident
Dibenz(a,h)anthracene	--	0.0007	Lifetime Resident
Dibenzofuran	--	0.79	Child Resident
Fluoranthene	--	16.4	Child Resident
Fluorene	--	29.8	Child Resident
Indeno(1,2,3-cd)pyrene	--	0.01	Lifetime Resident
2-Methylnaphthalene	--	28.0	Child Resident
Naphthalene	--	1.3	Adult Resident
Phenanthrene	--	18.3	Child Resident
Pyrene	--	13.3	Child Resident
Phenolic Compounds			
2,4-Dimethylphenol	--	28.9	Child Resident
3-Methylphenol	--	74.2	Child Resident
4-Methylphenol	--	7.4	Child Resident
Phenol	--	457	Child Resident
Volatile Organic Compounds			
Benzene*	5		Lifetime Resident
Ethylbenzene*	700		Adult Resident
Toluene*	1,000		Child Resident
Total Xylenes*	10,000		Adult Resident

Notes: *- Denotes that RG is equal to MCL

1. RG – Remedial Goal
2. MCL - Maximum Contaminant Level
3. ug/L - micrograms per liter
4. The Table lists remedial goals for various constituents of concern ("COCs") identified in groundwater. The target analyte list for groundwater monitoring activities may change over time and may not include all of the COCs listed on the Table. As COCs meet the remedial goals, they may be removed from the long-term groundwater monitoring program as approved by VADEQ.

ATTACHMENT II.D - ENVIRONMENTAL COVENANT

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When recorded, return to:
Michael M. Meloy
Manko, Gold, Katcher & Fox, LLP
Suite 901
401 City Avenue
Bala Cynwyd, PA 19004

Tax Map or Grid Parcel Identification No.: 814-709-0923
Property Address: 2401 Charles City Road, Richmond, Virginia 23231
Remediation Program Site Identification No.: EPA Identification No. VAD003121977

Grantor, Grantee and Holder: CSX Transportation, Inc.

ENVIRONMENTAL COVENANT

This Environmental Covenant is made and entered into as of the 6 day of August, 2018, by CSX Transportation, Inc. ("CSXT"), which has a mailing address of 500 Water Street, Jacksonville, Florida 32202. CSXT is the owner of the Property identified in Paragraph 1, below, and is the Grantor as that term is used in this Environmental Covenant. CSXT is also the Grantee and Holder of the Environmental Covenant. The Virginia Department of Environmental Quality (hereinafter referred to as the "Agency" or "VADEQ"), which has an address of 1111 East Main Street, Suite 1400, Richmond, Virginia 23219, also joins in this Environmental Covenant. This Environmental Covenant is executed pursuant to the Virginia Uniform Environmental Covenants Act ("UECA"), § 10.1-1238 et seq. of the Code of Virginia. This Environmental Covenant subjects the Property identified in Paragraph 1, below, to the activity and use limitations in this document.

1. Property Affected.

The property affected by this Environmental Covenant (hereinafter referred to as the "Property") is located in the eastern part of Henrico County, Virginia approximately 2.5 miles east of the City of Richmond, Virginia with a street address of 2401 Charles City Road, Richmond, Virginia 23231, and is further described as follows: The Property is approximately 800 feet wide and 2,750 feet long. A figure showing the boundaries of the Property is attached hereto as **Exhibit A**. A legal description (metes and bounds) of the Property is attached hereto as **Exhibit B**. The latitude and longitude of the center of the Property is 37.5042830°, -77.3582968° (WGS, 1984).

2. Description of Contamination and Remedy.

(a) The administrative record relating to the investigation and remediation of the Property is available at the offices of Region III of the United States Environmental Protection Agency ("EPA") currently located at 1650 Arch Street, Philadelphia, Pennsylvania 19103. The administrative record is also available at the offices of VADEQ at 1111 East Main Street, Suite 1400, Richmond, Virginia 23219.

(b) The Property was historically used as a wood treating facility by Koppers Company, Inc. from 1948 to 1983 to produce creosote-treated railroad cross ties. Thereafter,

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Beazer East, Inc. ("Beazer") acquired the Property through a series of corporate transactions and ultimately transferred the Property to CSXT on 21 March 1997. The historical wood treating operations caused various environmental impacts to soils and groundwater at the Property.

Environmental conditions at the Property have been evaluated and corrective measures for the Property have been implemented pursuant to the corrective action program under the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6901 – 6992k. This work has taken place in accordance with the terms of an Administrative Order on Consent (the "Consent Order") that Beazer and EPA entered into on 24 April 1991 pursuant to Section 3008(h) of RCRA, 42 U.S.C. § 6928(h). The obligations under the Consent Order were transferred from Beazer to CSXT effective 22 April 1998 in connection with transfer of the Property from Beazer to CSXT in 1997.

In compliance with the terms of the Consent Order, CSXT completed a Corrective Measures Study ("CMS") at the Property. The work associated with the CMS for the Property proceeded in multiple phases and culminated in the submission of a final CMS Report to EPA and VADEQ on 19 June 2009. The final version of the CMS Report was approved by EPA on 13 July 2009. Thereafter, EPA issued a Statement of Basis on 29 July 2009 summarizing the proposed corrective measures for the Property selected by EPA. A copy of the Statement of Basis is included in the administrative record for the Property described above. After seeking public comments regarding the Statement of Basis, EPA issued the Final Decision and Response to Comments ("FDRTC") document selecting the final remedy for the Property pursuant to the RCRA corrective action program on 21 December 2009. A copy of the FDRTC document is attached hereto as **Exhibit C**.

In addition to implementing the requirements of the Consent Order, CSXT has conducted post-closure care of a closed hazardous waste surface impoundment at the Property pursuant to a hazardous waste management permit initially issued by VADEQ with an effective date of 5 May 2000. On 30 October 2009, CSXT submitted a permit application to renew the hazardous waste management permit for post-closure activities relating to the closed hazardous waste surface impoundment at the Property. With concurrence from EPA and as authorized pursuant to 40 C.F.R. §§ 264.90(f) and 264.110(c), incorporated by reference in Virginia's hazardous waste management regulations at 9 Va. Admin. Code § 20-60-264, the site-wide corrective measures described in the FDRTC document were incorporated into the hazardous waste management permit (referred to hereinafter as the "Corrective Action Permit") issued by VADEQ on 17 August 2010. The Corrective Action Permit became effective on 16 September 2010.

The corrective measures selected by EPA for the Property focused on addressing releases of wood treating-related chemicals – mainly polynuclear aromatic hydrocarbons ("PAHs") and acid extractable phenolic compounds ("phenols") – at the Property. The corrective measures included actions to address conditions at seven areas of concern ("AOCs") identified at the Property. Key elements of the corrective measures selected by EPA included (1) removal of structures and equipment remaining at the Property, (2) construction of a slurry wall to contain significantly impacted areas near the north end of the Property, (3) excavation of soils from other targeted portions of the Property, (4) consolidation of excavated materials inside the

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slurry wall containment area, (5) construction of an engineered cap over the consolidated materials within the slurry wall containment area, (6) recovery of free product at locations inside the slurry wall containment area, (7) treatment of groundwater outside the slurry wall containment area using *in situ* chemical oxidation ("ISCO") and natural attenuation processes, (8) dewatering, backfilling and capping of the former water supply pond at the Property, (9) implementing certain activity and use limitations, and (10) conducting long-term monitoring and operation and maintenance ("O&M") activities.

Construction of the corrective measures at the Property took place between 2014 and 2016 in accordance with various design documents reviewed and approved by EPA and VADEQ. On 29 September 2016, EPA issued a letter to CSXT approving the revised Corrective Measures Implementation Construction Completion Report for the Property.

3. **Activity and Use Limitations.**

(a) The Property is subject to the activity and use limitations set forth below, which shall run with the land and become binding on CSXT as Grantor and any successors, assigns, tenants, agents, employees and other persons under its control, until such time as this Environmental Covenant may terminate as provided by law. The activity and use limitations are summarized in Section 6.4 of the Statement of Basis issued by EPA for the Property and are described in Section 5.4 of the Corrective Measures Implementation Plan for the Property dated August 2010 as approved by EPA in a letter dated 27 August 2010. The then current owner of the Property, and its tenants, agents, employees and other persons under its control, shall comply with the following:

(i) The Property shall only be used for non-residential purposes and shall not be used for residential purposes (including improvements, structures or dwellings used for living accommodations such as single family homes, multiple family dwellings, detached housing, condominiums, apartment buildings, dormitories, senior citizen housing and other residential-style facilities; schools; day care centers; child care centers; hospitals; and in-patient health care facilities).

(ii) Groundwater from beneath the Property shall not be used for any purpose; provided, however, that the collection of groundwater samples and the installation and use of groundwater monitoring, recovery, injection or extraction wells or similar devices used for or related to the performance of groundwater assessment or remediation shall not be prohibited.

(iii) Subsurface soils at the Property shall not be excavated except in conformance with an appropriate soil management plan.

(iv) No activities that would interfere with or adversely impact the slurry wall that has been installed at the Property may be undertaken.

(v) The cap over the slurry wall containment area shall be periodically inspected and maintained.

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(b) Geographic coordinate lists defining the boundary of each area, depicted as polygon, to which the activity and use limitations set forth above apply are as follows:

(i) The activity and use limitations contained in Paragraphs 3(a)(i), 3(a)(ii) and 3(a)(iii), above (relating to the Property as a whole), apply to the area described in **Exhibit D**. A table containing the geographic coordinates for the area described in **Exhibit D** is set forth below:

Property Boundary Point Table

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
2000	3710259.60	11814502.24	37.5072644	-77.3568339
2001	3709803.01	11814493.73	37.5060108	-77.3568823
2002	3708032.57	11814494.17	37.5011488	-77.3569547
2003	3707519.93	11814857.03	37.4997289	-77.3557254
2004	3707484.64	11814923.21	37.4996298	-77.3554987
2005	3707346.89	11815558.45	37.4992303	-77.3533149
2006	3707325.88	11815553.89	37.4991728	-77.3533315
2007	3707586.38	11814352.61	37.4999282	-77.3574613
2008	3707664.69	11814154.28	37.5001498	-77.3581416
2009	3707701.72	11813983.51	37.5002572	-77.3587287
2010	3708334.93	11813694.07	37.5020057	-77.3597000
2011	3710670.15	11813693.48	37.5084187	-77.3596048
2012	3710259.60	11814502.24	37.5072644	-77.3568339

Property Boundary Curve Table

Curve #	Delta	Radius	Length	Tangent	Chord	Chord Bearing
C1	70°33'51"	543.69'	669.59'	384.70'	628.07'	S35°17'31"E
C2	15°53'49"	770.99'	213.92'	107.65'	213.23'	S68°27'12"E
C3	48°59'49"	839.49'	717.90'	382.55'	696.22'	S24°33'57"E

(ii) The activity and use limitations contained in Paragraph 3(a)(iv), above (relating to the location where the slurry wall is present at the Property), apply to the area described in **Exhibit E**. A table containing the geographic coordinates for the area described in **Exhibit E** is set forth below:

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
16280	3710125.68	11814402.00	37.5069000	-77.3571851
16285	3710105.13	11814401.32	37.5068436	-77.3571883
16292	3710085.66	11814401.87	37.5067901	-77.3571872
16300	3710059.64	11814400.96	37.5067186	-77.3571914
16309	3710046.15	11814400.66	37.5066816	-77.3571930

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Coordinates for Area Described in Exhibit E (Continued)

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
16315	3710025.87	11814401.14	37.5066259	-77.3571922
16322	3710009.39	11814400.82	37.5065807	-77.3571940
16329	3709987.14	11814400.41	37.5065196	-77.3571963
16338	3709967.58	11814400.20	37.5064659	-77.3571979
16343	3709948.21	11814400.09	37.5064127	-77.3571991
16350	3709929.10	11814400.23	37.5063602	-77.3571994
16355	3709911.68	11814399.99	37.5063123	-77.3572009
16362	3709894.17	11814399.58	37.5062643	-77.3572031
25065	3710105.54	11813841.53	37.5068633	-77.3591180
25066	3710127.96	11813842.10	37.5069248	-77.3591151
25067	3710150.29	11813842.18	37.5069862	-77.3591139
25068	3710173.39	11813842.31	37.5070496	-77.3591125
25069	3710194.08	11813842.23	37.5071064	-77.3591119
25070	3710215.59	11813842.54	37.5071655	-77.3591099
25071	3710237.25	11813842.60	37.5072249	-77.3591088
25072	3710261.06	11813842.79	37.5072903	-77.3591071
25073	3710280.58	11813842.80	37.5073439	-77.3591063
25074	3710301.04	11813842.98	37.5074001	-77.3591048
25075	3710311.03	11813843.11	37.5074275	-77.3591040
25076	3710341.37	11813892.00	37.5075092	-77.3589342
25077	3710341.33	11813912.30	37.5075084	-77.3588642
25078	3710340.68	11813933.36	37.5075060	-77.3587916
25079	3710340.07	11813954.50	37.5075036	-77.3587188
25080	3710339.66	11813976.53	37.5075017	-77.3586428
25081	3710339.14	11813997.81	37.5074996	-77.3585695
25082	3710339.31	11814020.83	37.5074993	-77.3584901
25083	3710339.09	11814044.37	37.5074979	-77.3584090
25084	3710339.02	11814067.07	37.5074970	-77.3583308
25085	3710339.12	11814089.11	37.5074965	-77.3582548
25086	3710339.14	11814109.99	37.5074959	-77.3581828
25087	3710339.51	11814132.69	37.5074961	-77.3581045
25088	3710338.70	11814153.69	37.5074932	-77.3580322
25089	3710338.41	11814176.00	37.5074917	-77.3579553
25090	3710338.14	11814198.24	37.5074902	-77.3578786
25091	3710337.99	11814216.58	37.5074892	-77.3578154
25092	3710338.52	11814239.36	37.5074899	-77.3577369
25093	3710339.31	11814253.59	37.5074916	-77.3576878
25094	3710337.01	11814260.55	37.5074850	-77.3576639
25095	3710329.30	11814269.53	37.5074636	-77.3576332

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Coordinates for Area Described in Exhibit E (Continued)

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
25096	3710310.05	11814285.36	37.5074102	-77.3575795
25097	3710294.63	11814296.53	37.5073675	-77.3575416
25099	3710261.40	11814320.53	37.5072754	-77.3574602
25100	3710244.75	11814332.24	37.5072293	-77.3574206
25101	3710228.43	11814345.22	37.5071840	-77.3573765
25102	3710211.53	11814357.62	37.5071372	-77.3573345
25103	3710196.34	11814367.62	37.5070952	-77.3573007
25104	3710182.70	11814378.82	37.5070573	-77.3572626
25105	3710165.90	11814390.89	37.5070108	-77.3572217
25107	3710149.47	11814400.67	37.5069653	-77.3571887
25126	3709870.84	11814400.77	37.5062002	-77.3571999
25127	3709849.88	11814399.88	37.5061426	-77.3572039
25128	3709826.42	11814398.92	37.5060782	-77.3572082
25129	3709805.30	11814398.66	37.5060202	-77.3572099
25130	3709781.97	11814398.56	37.5059562	-77.3572113
25131	3709763.87	11814399.64	37.5059065	-77.3572083
25132	3709750.93	11814392.01	37.5058711	-77.3572352
25133	3709740.84	11814381.06	37.5058438	-77.3572733
25134	3709734.92	11814369.03	37.5058279	-77.3573150
25135	3709735.00	11814349.05	37.5058288	-77.3573839
25136	3709734.82	11814328.19	37.5058290	-77.3574558
25137	3709735.13	11814306.83	37.5058306	-77.3575294
25138	3709735.19	11814285.35	37.5058315	-77.3576035
25139	3709735.21	11814261.28	37.5058323	-77.3576864
25140	3709734.42	11814239.57	37.5058309	-77.3577613
25141	3709734.90	11814219.76	37.5058329	-77.3578296
25142	3709735.58	11814199.27	37.5058354	-77.3579002
25143	3709735.82	11814177.45	37.5058368	-77.3579754
25144	3709735.98	11814158.03	37.5058379	-77.3580423
25145	3709736.10	11814136.46	37.5058389	-77.3581167
25146	3709736.13	11814113.46	37.5058398	-77.3581960
25147	3709735.46	11814091.86	37.5058386	-77.3582705
25148	3709736.11	11814068.58	37.5058412	-77.3583507
25149	3709735.50	11814047.45	37.5058402	-77.3584236
25150	3709735.12	11814026.01	37.5058399	-77.3584975
25151	3709735.43	11814006.45	37.5058414	-77.3585649
25156	3710081.87	11813841.75	37.5067983	-77.3591182
25157	3710061.45	11813841.70	37.5067422	-77.3591192
25158	3710040.59	11813841.59	37.5066849	-77.3591205

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Coordinates for Area Described in Exhibit E (Continued)

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
25159	3710020.67	11813841.50	37.5066302	-77.3591216
25160	3710005.51	11813841.35	37.5065886	-77.3591228
25161	3709980.28	11813841.07	37.5065193	-77.3591248
25162	3709960.91	11813840.78	37.5064661	-77.3591266
25163	3709939.79	11813840.39	37.5064081	-77.3591288
25164	3709920.10	11813840.56	37.5063541	-77.3591291
25165	3709896.32	11813840.76	37.5062887	-77.3591293
25166	3709874.16	11813840.54	37.5062279	-77.3591310
25167	3709846.05	11813839.07	37.5061508	-77.3591373
25168	3709824.92	11813840.01	37.5060927	-77.3591349
25169	3709805.32	11813839.84	37.5060389	-77.3591363
25170	3709784.97	11813841.53	37.5059829	-77.3591313
25171	3709765.84	11813846.19	37.5059302	-77.3591161
25172	3709744.79	11813863.03	37.5058719	-77.3590589
25173	3709737.55	11813881.00	37.5058514	-77.3589972
25174	3709735.65	11813901.56	37.5058455	-77.3589265
25175	3709736.15	11813921.02	37.5058462	-77.3588594
25176	3709735.46	11813939.74	37.5058437	-77.3587949
25177	3709735.76	11813987.34	37.5058430	-77.3586308
25178	3710341.15	11813871.96	37.5075093	-77.3590033
25179	3710331.50	11813854.93	37.5074834	-77.3590624
25180	3710315.68	11813842.88	37.5074403	-77.3591046
25181	3709735.35	11813964.17	37.5058426	-77.3587106

(iii) The activity and use limitations contained in Paragraph 3(a)(v), above (relating to the location where the cap is present over the slurry wall containment area at the Property), apply to the area described in **Exhibit F**. A table containing the geographic coordinates for the area described in **Exhibit F** is set forth below:

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
40800	3710330.55	11813840.61	37.5074812	-77.3591118
40801	3710342.32	11813852.79	37.5075131	-77.3590693
40802	3710347.82	11813871.90	37.5075276	-77.3590032
40803	3710347.26	11813921.85	37.5075244	-77.3588310
40804	3710347.39	11813971.98	37.5075231	-77.3586582
40805	3710347.18	11814021.91	37.5075209	-77.3584861
40806	3710346.89	11814071.85	37.5075184	-77.3583140
40807	3710346.55	11814121.83	37.5075158	-77.3581417
40808	3710346.32	11814171.90	37.5075135	-77.3579691

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Coordinates for Area Described in Exhibit F (Continued)

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
40809	3710346.09	11814221.94	37.5075112	-77.3577966
40810	3710346.05	11814269.66	37.5075096	-77.3576321
40811	3710331.88	11814279.93	37.5074703	-77.3575973
40812	3710281.96	11814315.98	37.5073320	-77.3574751
40813	3710231.93	11814351.96	37.5071934	-77.3573532
40814	3710181.90	11814387.86	37.5070548	-77.3572315
40816	3710132.10	11814409.55	37.5069173	-77.3571588
40817	3710082.07	11814409.06	37.5067800	-77.3571626
40818	3710031.86	11814408.76	37.5066421	-77.3571657
40819	3709982.12	11814408.44	37.5065055	-77.3571689
40820	3709932.00	11814407.63	37.5063679	-77.3571737
40821	3709881.97	11814407.33	37.5062305	-77.3571769
40822	3709831.74	11814407.08	37.5060926	-77.3571798
40823	3709781.92	11814406.79	37.5059558	-77.3571829
40824	3709757.45	11814406.41	37.5058886	-77.3571852
40825	3709734.44	11814398.70	37.5058256	-77.3572128
40826	3709724.55	11814386.34	37.5057989	-77.3572558
40827	3709721.41	11814376.80	37.5057906	-77.3572888
40828	3709722.71	11814321.85	37.5057960	-77.3574782
40829	3709722.69	11814271.75	37.5057976	-77.3576509
40830	3709723.78	11814221.94	37.5058022	-77.3578226
40831	3709724.87	11814171.96	37.5058069	-77.3579948
40832	3709726.04	11814121.82	37.5058118	-77.3581676
40833	3709726.86	11814071.99	37.5058157	-77.3583393
40834	3709728.19	11814022.11	37.5058210	-77.3585112
40835	3709728.49	11813972.02	37.5058235	-77.3586839
40836	3709728.93	11813921.81	37.5058264	-77.3588569
40837	3709729.00	11813880.95	37.5058279	-77.3589978
40838	3709730.08	11813871.84	37.5058312	-77.3590291
40839	3709735.80	11813856.11	37.5058474	-77.3590831
40840	3709749.01	11813841.57	37.5058842	-77.3591327
40841	3709760.31	11813835.45	37.5059154	-77.3591533
40842	3709778.70	11813831.91	37.5059660	-77.3591648
40843	3709831.92	11813832.26	37.5061122	-77.3591613
40844	3709881.95	11813832.56	37.5062495	-77.3591582
40845	3709931.86	11813832.69	37.5063866	-77.3591557
40846	3709982.74	11813833.05	37.5065263	-77.3591523
40847	3710031.75	11813833.34	37.5066609	-77.3591493
40848	3710081.96	11813833.71	37.5067988	-77.3591459

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Coordinates for Area Described in Exhibit F (Continued)

Point #	Northing	Easting	Latitude (Dd)	Longitude (Dd)
40849	3710131.82	11813833.87	37.5069357	-77.3591433
40850	3710181.86	11813834.27	37.5070731	-77.3591398
40851	3710232.02	11813834.41	37.5072109	-77.3591373
40852	3710282.07	11813834.71	37.5073483	-77.3591341
40853	3710310.55	11813834.75	37.5074265	-77.3591328

4. **Notice of Limitations in Future Conveyances.**

Unless and until this Environmental Covenant terminates, each instrument hereafter conveying any interest in the Property subject to this Environmental Covenant shall contain a notice of the activity and use limitations set forth in this Environmental Covenant and shall provide the recorded location of this Environmental Covenant.

5. **Compliance and Use Reporting.**

(a) By the end of every fifth January following the Agency's approval of this Environmental Covenant and within thirty (30) days after receipt of a written request from the Agency, the then current owner of the Property shall submit to the Agency and to CSXT as the Holder of this Environmental Covenant written documentation stating whether or not the activity and use limitations in Paragraph 3 of this Environmental Covenant are being observed. This documentation shall be signed by a qualified and certified professional engineer who has inspected and investigated compliance with this Environmental Covenant.

(b) In addition, within one (1) month after any of the following events, the then current owner of the Property shall submit to the Agency and to CSXT as the Holder of this Environmental Covenant written documentation describing the following:

(i) noncompliance with the activity and use limitations in Paragraph 3 of this Environmental Covenant;

(ii) transfer of the Property;

(iii) changes in use of the Property that would violate the activity and use limitations in Paragraph 3 of this Environmental Covenant; or

(iv) the filing of a permit application for any building or site work if the building or proposed site work will affect the contamination on the Property subject to this Environmental Covenant.

6. **Access by the Holder and the Agency.**

In addition to any rights already possessed by the Holder and the Agency, this Environmental Covenant grants to CSXT as the Holder and the Agency a right of reasonable

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access to the Property in connection with the implementation, inspection or enforcement of this Environmental Covenant.

7. Subordination.

Based on a title review conducted by and on behalf of the Grantor regarding title to the Property, no encumbrances on the Property have been identified that would need to be subordinated prior to execution of this Environmental Covenant by the Agency and the Holder.

8. Recording and Proof and Notification.

(a) Within ninety (90) days after the date of the Agency's approval of this Environmental Covenant, the Grantor shall record, or cause to be recorded, this Environmental Covenant with the Clerk of the Circuit Court for Henrico County. The Grantor shall likewise record, or cause to be recorded, any amendment, assignment, or termination of this Environmental Covenant with the Clerk of the Circuit Court for Henrico Count within ninety (90) days after its execution. Any environmental covenant or amendment, assignment, or termination of an environmental covenant recorded outside these periods shall be invalid and of no force and effect.

(b) The Grantor shall send a file-stamped copy of this Environmental Covenant, and of any amendment, assignment, or termination, to the Holder and the Agency within sixty (60) days after recording. Within that time period, the Grantor also shall send a file-stamped copy of this Environmental Covenant to the County Manager for Henrico County, any persons who are in possession of the Property who are not the Grantor, any other parties to whom notice is required pursuant to UECA.

9. Termination or Amendment.

This Environmental Covenant is perpetual and runs with the land unless terminated or amended (including assignment) in accordance with UECA.

10. Enforcement of Environmental Covenant.

This Environmental Covenant shall be enforced in accordance with § 10.1-1247 of the Code of Virginia.

11. Severability.

The paragraphs of this Environmental Covenant shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect.

[SIGNATURES ON NEXT PAGE]

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IN WITNESS WHEREOF, CSX TRANSPORTATION, INC., as Grantor (Owner), Grantee and Holder, pursuant to due corporate authority, has caused its name to be signed hereto by its officers hereunto duly authorized and its corporate seal, duly attested, to be hereunto affixed in the following form:

Signed, sealed and delivered
in the presence of:

CSX Transportation, Inc.
Owner, Grantor, Grantee and Holder

By: _____
Name: Shantel N. Davis
Title: Vice President – Real Estate and Facilities
Date: _____

Attest _____ (SEAL)
Secretary

Print Name: STEVEN ARMBRUST
ASST. CORPORATE SECRETARY

STATE OF FLORIDA)
) SS:
COUNTY OF DUVAL)

On this 23rd day of February, 2018, before me, the undersigned notary public of the State of Florida and the County of Duval, personally appeared Shantel N. Davis, as Vice President – Real Estate and Facilities of CSX Transportation, Inc., provided to me through satisfactory evidence of identification, which was personal knowledge, who acknowledged herself to be the person whose name is subscribed to this Environmental Covenant, and acknowledged to me that she freely executed the same for the purposes therein contained, and who, being by me first duly sworn, did make oath, acknowledge and say that: she is Vice President - Real Estate and Facilities of CSX Transportation, Inc., the corporation described in and which executed said instrument; she is fully informed of the contents of the instrument; she knows the seal of said corporation; the seal affixed to said instrument is such seal; it was so affixed by authority of the Board of Directors of said corporation; she signed her name thereto for said corporation pursuant to Board authority; and instrument is the free act and deed of said corporation; and the conveyance herein is not part of a transaction, sale, lease, exchange or other transfer or conveyance of all or substantially all of the property and/or assets of the Grantor.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

_____ (SEAL)
Notary Public
Print Name: Regina A. Taylor-Murphy
My Commission Expires:

REGINA A. TAYLOR-MURPHY
Notary Public - State of Florida
My Comm. Expires Mar 15, 2019
Commission # FF 178182
Bonded through National Notary Assn.

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AGENCY:

APPROVED by the Virginia Department of Environmental Quality as required by § 10.1-1238 et seq. of the Code of Virginia.

Date: 8/1/18

By (signature):
Name (printed): Justin Williams
Title: Director of Land Protection and Revitalization, Virginia Department of Environmental Quality

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EXHIBIT A

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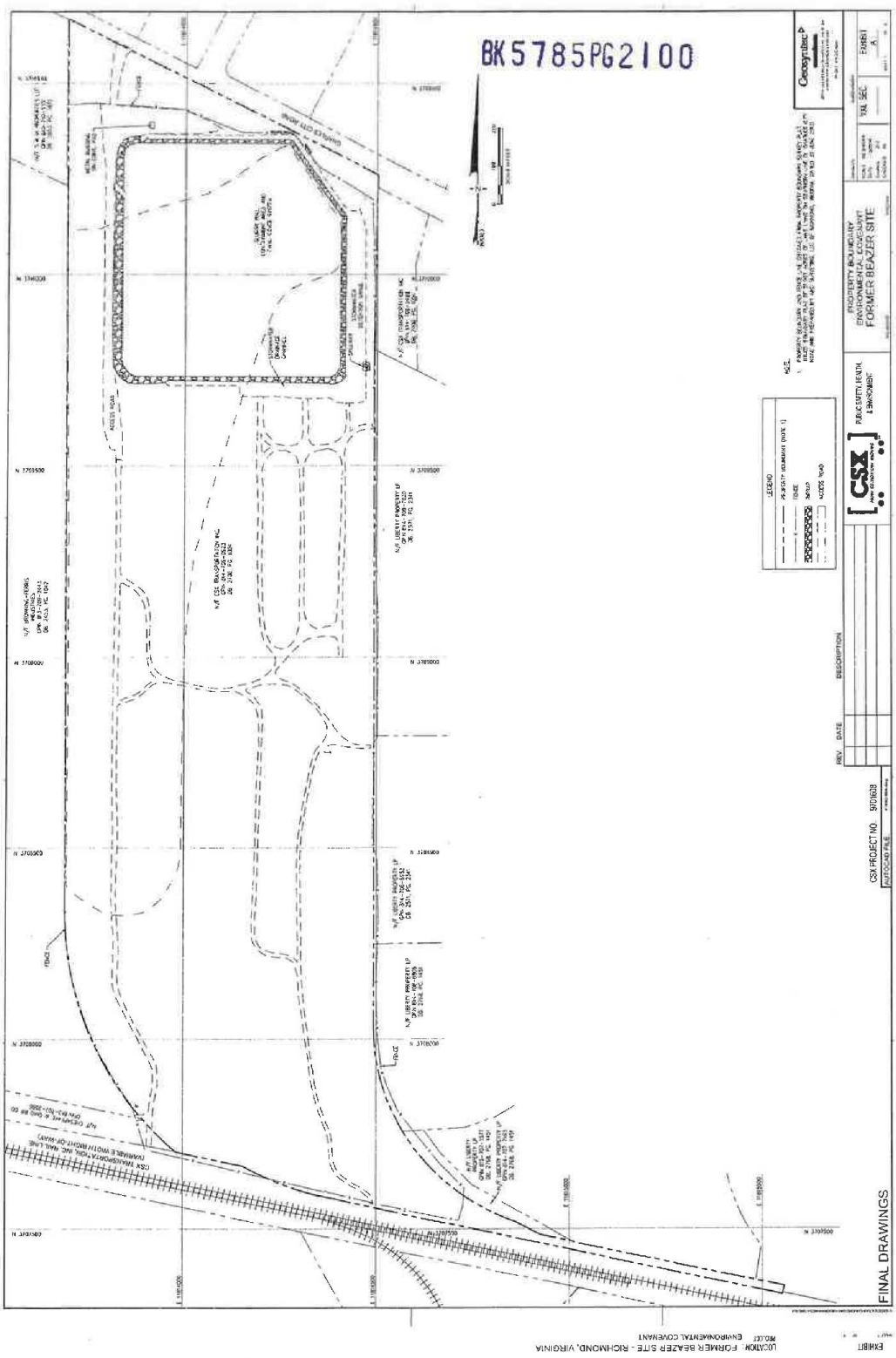
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FINAL DRAWINGS
PROPERTY BOUNDARY
ENVIRONMENTAL EASEMENT
FORMER BEAZER SITE
CSX
PUBLIC SAFETY, HEALTH, & ENVIRONMENT
LEGEND
NOTES
REV.
DATE
DESCRIPTION
CSX PROJECT NO.
AUTOCAD FILE
LOCATION: FORMER BEAZER SITE - RICHMOND, VIRGINIA
PROJECT: ENVIRONMENTAL COVENANT
EXHIBIT

BK5785PG2101

EXHIBIT B

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Exhibit B – Legal Property Description (Metes and Bounds)

Property Address: 2401 Charles City Road, Richmond, Henrico County, Virginia 23231
Grid Parcel Identification No.: 814-709-0923

The following Metes and Bounds describes the legal property boundary for the parcel of property located at 2401 Charles City Road, Richmond, Henrico County, Virginia 23231 and was obtained from the property boundary survey plat titled "Boundary Plat of 51.967 Acres of Land Lying on Southern Line of Charles City Road," dated 30 June 2010, and prepared by ARC Surveying, LLC of Richmond, Virginia.

Beginning at a point on the southern right-of-way line of Charles City Road and 909.35 feet from Eastport Boulevard west line extended;

thence South 01°04'08" West along a common line with property of CSX Transportation Inc., a distance of 456.66 feet to a C&ORR monument;

thence South 00°00'52" East along a common line with property of Liberty Property LP., a distance of 1770.44 feet to an iron rod;

thence along a curve having a radius of 543.69 feet and a central angle of 70°33'51", a tangent of 384.70 feet. and being subtended by a chord which bears South 35°17'31" East 628.07 feet, a distance of 669.59 feet to a C&ORR monument;

thence South 61°55'52" East, a distance of 75.00 feet to a C&ORR monument;

thence South 77°45'52" East, a distance of 650.00 feet to a C&ORR monument;

thence South 12°14'08" West a distance of 21.50 feet to a C&ORR monument on the northern right-of-way line of CSX Railroad Right-of-Way;

thence North 77°45'52" West, a distance of 1229.20 feet to an iron rod;

thence along a curve concave to the north having a radius of 770.99 feet and a central angle of 15°53'49", a tangent of 107.65 feet. and being subtended by a chord which bears North 68°27'12" West 213.23 feet, a distance of 213.92 feet to an iron rod;

thence North 77°45'52" West, a distance of 174.74 feet to an iron rod;

thence along a curve concave to the northeast having a radius of 839.49 feet and a central angle of 48°59'49", a tangent of 382.55 feet, and being subtended by a chord which bears North 24°33'57" West 696.22 feet, a distance of 717.90 feet;

thence North 00°00'52" West along common line with properties of Schneider Disposal Service and S+M Properties LLC, a distance of 2335.22 feet to a C&ORR monument;

thence South 63°05'11" East along the southern line of Charles City Road, a distance of 907.00 feet to the Point of Beginning.

Containing 51.967 acres, more or less.

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EXHIBIT C

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Exhibit C

BK5785PG2104

FINAL DECISION
and
RESPONSE TO COMMENTS

CSX TRANSPORTATION, INCORPORATED FACILITY
RICHMOND, VIRGINIA

December, 2009

BK5785PG2105

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

FINAL DECISION AND RESPONSE TO COMMENTS

Purpose

The United States Environmental Protection Agency ("EPA") is issuing this Final Decision and Response to Comments ("Final Decision") under the authority of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act ("RCRA") of 1976, and the Hazardous and Solid Waste Amendments ("HSWA") of 1984, 42 U.S.C. Sections 6901 to 6939(e), to the CSX Transportation Inc. ("CSXT") Facility for a facility located at 2401 Charles City Road in Henrico County, Richmond, Virginia (hereinafter the "Facility" or the "Site").

On July 29, 2009, EPA issued a Statement of Basis ("SB") which described the information gathered during the environmental investigation at the Facility, and the Proposed Remedy for the Facility. The SB is hereby incorporated into this Final Decision by reference and made a part hereof as Attachment A.

Final Decision

The selected remedy consists of source removal and source control through excavation, consolidation and capping of soils and sediments with concentrations of contaminants above remedial goals in a containment area (i.e. slurry wall). The primary source area of groundwater contamination will be controlled via construction of the slurry wall and free product removal. Targeted in-situ treatment and monitored natural attenuation will be used to address areas outside of the slurry wall containment area to restore groundwater to drinking water standards. In addition, institutional controls will be implemented to prevent current and potential future exposure to contamination.

The selected remedy includes the following components to address conditions at the Site and potential risks posed by those conditions:

- Demolition of buildings in areas where active remediation is required to facilitate construction of the corrective measures;

- Installation of a slurry wall to contain the source area and control groundwater migration away from the source area. The source area consists of the former treatment area: (Area of Concern ("AOC") 1 - Closed Surface Impoundment; AOC 2A - Creosote Unloading Area and Treatment Area; northern part of AOC 2B - Drip Tracks; AOC 2C - Former Tanks; AOC 3 - Container Storage Areas; northern part of AOC 4 - Temporary Drum Storage Areas; and AOC 6 - Water Supply Pond);

- Excavation of targeted surface soils, subsurface soils and sediments outside the slurry wall containment area with contaminant of concern ("COC") concentrations above Remedial Goals ("RGs"). Consolidation of the excavated material inside the slurry wall

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containment area beneath an engineered cap to preclude future potential exposure to the excavated material by receptors.

- Restoration of excavated areas including backfilling with clean soil and establishing vegetative cover, and restoration of the Eastern Drainage Ditch ("EDD") area;
- Recovery of free product using recovery wells installed in the treatment area (AOC 2A) and northern portion of the drip track area (AOC 2B);
- A combination of targeted in situ chemical oxidation and oxidative bioremediation will be used, along with natural intrinsic attenuation processes, to treat groundwater outside of the slurry wall containment area. Monitored natural attenuation/groundwater monitoring will be conducted to evaluate the effectiveness and progress of treatment and natural attenuation processes;
- Dewatering, backfilling and capping of the former water supply pond (AOC 6);
- Implementation of institutional and engineering controls to prohibit activities that may interfere with the engineered remedy and restrict or prevent activities that may result in unacceptable risk to human health and the environment, and;
- Long-term monitoring and operation and maintenance ("O&M") including: monitoring the performance of the containment system, inspection/maintenance of cap and other site areas, free product recovery operations, monitored natural attenuation of groundwater, and monitoring and maintenance of institutional controls.

The following institutional controls will be used to ensure the short- and long-term reliability of the remedy. Institutional controls to be utilized at the Site will:

(1) prohibit the use of the Site for residential purposes (including, but not limited to, single family homes, multiple family dwellings, schools, day care centers, child care centers, apartment buildings, dormitories, other residential-style facilities, hospitals, and in-patient health care facilities);

(2) prohibit the use of groundwater from beneath the Site;

(3) restrict subsurface soil excavation at the Site except in conformance with an appropriate soil management plan;

(4) restrict activities that would interfere with or adversely impact the integrity of the remedy or the slurry wall; and

(5) require that the cap over the containment area be periodically inspected and maintained.

The institutional controls described above will be implemented at the Site through the following mechanisms:

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- A declaration of restrictive covenant or similar instrument consistent with applicable requirements under the laws of the Commonwealth of Virginia will be recorded with the real property records for the Site such that prospective purchasers of the Site will have constructive notice of land use restrictions. The declaration of restrictive covenants will contain the land use controls described above and will be recorded with the land records in the office of the clerk of the circuit court for the jurisdiction in which the Site is located within ninety (90) days of executing the declaration. The current owner and future owners of the Site will be obligated to comply with the recorded restrictive covenant since the covenant will run with the land.

- The existing post-closure permit for the closed surface impoundment (AOC 1) will be modified to include this final decision, and will be used as the controlling authority for implementation of the remedy through the VADEQ in consultation with EPA. The post-closure permit will also be modified, as appropriate, to include land use restrictions as described above.

- While on-Site groundwater is not currently used as a drinking water source and there are no plans for such future use, to provide additional protection, the selected remedy includes institutional controls to prohibit the development of on-Site wells for drinking water or other domestic uses at the Facility. A notification to prohibit well drilling under Virginia's Private Well Regulations, 12VAC 5-630-380 will be provided by CSXT to the local health district (Henrico Health Department) in writing describing the nature and extent, including a map, survey description, and geographic coordinates of the Facility-related contaminated groundwater located on the Facility property and offsite. The notice will be updated every two (2) years to reflect the latest contaminated groundwater plume boundary. A copy of the notification will be provided to EPA and VADEQ.

- CSXT will be required to submit biennial review reports on the effectiveness of the institutional controls in meeting the human health and environmental protection objectives. This review may include, but not be limited to, review of CSXT's compliance with the covenant requirements, groundwater and land uses within 0.5 mile of the Facility, and zoning maps or planning documents that may affect future land use in the impacted area. Additionally, CSXT will be required to submit five (5)-year review reports on the progress of the remedial measures and of meeting the cleanup standards or RGs. The Henrico Health Department and Virginia Department of Environmental Quality will be provided with CSXT's biennial review reports and five (5)-year review reports.

EPA and VADEQ will review the progress of the remedy activities to confirm that RGs have been met. If EPA and/or VADEQ determine that CSXT is not achieving RGs, EPA and/or VADEQ may require CSXT to perform additional studies and/or to modify the existing corrective measures. If new contamination is discovered or if the selected remedy cannot adequately mitigate risk to human health or the environment, additional corrective measures will be developed and implemented. In the event that EPA and/or VADEQ requires the performance of additional studies and/or the modification of the corrective measures selected in this final decision, an opportunity for public comment will be provided prior to the initiation of changes to the existing corrective measures, as necessary or appropriate.

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Response to Comments

On July 29, 2009, this matter was publicly noticed in the Richmond Times-Dispatch, Richmond, Virginia newspaper. The thirty (30) - day comment period ended on August 31, 2009. No requests for a public meeting were received by EPA; however, comments on the proposed remedy were received from one resident of Charlottesville, VA. EPA has evaluated and provided responses to the most significant of these comments in the following section of this document. EPA's decision is unchanged from that proposed in the SB.

General comment 1: The public notice process used by EPA for the CSXT site was incorrect.

EPA response: EPA used an acceptable approach in fulfilling its public notice and public participation requirements for the CSXT Site. This approach was consistent with standard Agency practice and relevant guidance.

General comment 2: The administrative record procedure used by EPA for the CSXT SB was inconvenient with regard to access to EPA guidance documents.

EPA response: EPA used an acceptable approach in making the CSXT Administrative Record ("AR") available for public review. While several EPA guidance documents were listed in the AR Index for CSXT, paper copies of these documents were not reproduced as part of the CSXT AR. The Agency maintains and makes these documents freely available at all times using our Region III program specific internet site. In an effort to avoid unnecessary duplication and paper waste, EPA has promoted the use of the Regional web site for public access to program guidance documents for several years.

General comment 3: The proposed remedy uses containment instead of remediation and is not consistent with the NCP, EPA's OSWER Directives, and EPA guidance associated with Superfund and RCRA site cleanup.

EPA response: As described in Section 6 of the SB, the remedy proposed and selected by EPA for the CSXT Site includes source removal and source control components as well as in-situ treatment, monitored natural attenuation and institutional controls. This remedial strategy was thoroughly evaluated in the Corrective Measures Study Report and is consistent with the objectives and requirements of applicable EPA guidance for the RCRA Corrective Action program.

Specific comment 4: Section 2 of the SB does not include sufficient detail about the regulatory status, hazardous wastes managed at the site or existence of post-closure permit to enable reader to complete a meaningful review.

EPA response: Sections 2.1 and 3.2 of the SB include sufficient information to describe the RCRA regulatory status of the CSXT Facility and the post-closure permit issued by VADEQ for AOC 1. As stated in the Introduction, Section 1 of the SB, the information summarized in the SB can be found in greater detail in the work plans and reports submitted to EPA and VADEQ. The majority of these documents were included in the AR for the SB.

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Specific comment 5: The SB fails to describe the specific hazardous wastes managed at the facility and does not properly consider the RCRA Land Disposal Restrictions ("LDRs") and other related requirements as part of the proposed remedy.

EPA response: The SB provides a summary of the investigation activities completed at the Site, the nature of the conditions found at the Site and the elements of the proposed remedy. Additional details including the identification of the listed hazardous wastes that have been managed at the Site as well as the nature and extent of soil, sediment, surface water and ground water contamination resulting from the previous operations is provided in the reports and documents used by EPA to support this decision. These reports also include an analysis of regulations and requirements that may be considered applicable to the CSXT Site.

As summarized in Section 6.2 of the SB and as discussed in greater detail in the CMS Report, EPA's policy entitled, "Use of the Area of Contamination (AOC) Concept During RCRA Cleanups (March 13, 1995) ("AOC Policy") has been used as a key component of the clean-up strategy developed for the CSXT Site. The AOC Policy allows for consolidation and other *in situ* waste management techniques to be used within an area of generally dispersed contamination without triggering RCRA permitting, LDRs or minimum technology requirements. EPA has recognized that application of the AOC Policy can be particularly useful in the context of remediating wood treating sites where contamination is present in generally dispersed areas and it is not technically feasible to distinguish between releases from individual AOCs. This policy has particular application to the CSXT Site in that the Site exhibits large contiguous areas of generally dispersed contamination that are linked through historical operational activities and the migration of contaminants from operational areas. Based on the findings of the RFI and the comingled nature of the contaminants found at the Site, EPA determined that taking a holistic approach to facility-wide corrective action would be both protective and efficient. This approach is consistent with EPA's RCRA Cleanup Reforms Guidance, the AOC Policy, and other related requirements.

Specific comment 6: Five of the seven AOCs identified in Section 3.2 of the SB are actually SWMUs with specific regulatory requirements which have not been appropriately addressed by the proposed corrective measures.

EPA response: SWMU designations apply to a broader universe of units than just hazardous waste management units that are subject to specific regulatory/permitting requirenments. Only the former hazardous waste impoundment at the Site qualified as a hazardous waste management unit. The RCRA corrective action process is designed to address Site-wide environmental issues. Section 3.2 of the SB provides a summary of the information contained in the 1996 RFI Report for the CSXT Site. The findings of the RFI were used to evaluate risks to human health and the environment posed by the contamination found at the Site on a facility-wide basis. The development of a facility-wide corrective action strategy for the Site included consideration of the one AOC that is addressed by a post closure permit with VADEQ, as discussed in more detail in the CMS Report.

Specific comment 7: Section 3.2 of the SB indicates that "free product" was encountered in shallow groundwater. What substance does this free product consist of? What product was produced at this facility?

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EPA response: As described in the CMS Report, limited free product accumulation has been observed at 2 of the 70 monitoring wells installed at the Site. This free phase product is primarily residual creosote in a non-aqueous phase liquid form that remains in the clay soils at the Site as a result of the previous operations. The previous site owner, Koppers Company, produced creosote-treated railroad ties at the Site between 1949 and 1983.

Specific comment 8: The SB failed to consider ARARs related to groundwater cleanup and failed to require cleanup of site groundwater to MCLs.

EPA response: The impacted groundwater at the Site was properly evaluated and addressed by EPA in the SB consistent with applicable guidance and policy for the RCRA program. This evaluation included the consideration of the current and reasonably anticipated future use of the site, including groundwater use in the vicinity of the Site. As stated in the CMS Report, EPA and VDEQ share a specifically stated goal of restoring Site groundwater to its maximum beneficial use, i.e., drinking water. Section 3.1.9 of the CMS Report includes a specific objective for the CSXT Site that is consistent with EPA's and VADEQ's groundwater cleanup policies. Table 2 of the SB includes contaminant-specific Remedial Goals ("RGs") for Site groundwater which are either MCLs or RGs for contaminants without established MCLs. Groundwater RGs assume domestic use (i.e., drinking water). The selected remedy will ensure that RGs will be attained for groundwater outside the slurry wall, and that ICs are established to prohibit the development of on-Site wells for drinking water or other domestic uses. The specific time frame needed to meet the groundwater cleanup goals at the Site will be determined as part of the groundwater monitoring program to be conducted during implementation of the remedy.

The ARAR concept is directly applicable to final remedy decisions made in the CERCLA program but not the RCRA Corrective Action program. The RCRA program includes a similar evaluation and one of the balancing factors (effectiveness) is included in the remedy selection criteria. Compliance with applicable standards for the management of wastes is one of the effectiveness criteria that are evaluated for each Corrective Measures Alternative ("CMA") developed for the Site. Section 6.1.4 of the CMS Report includes a specific discussion regarding this matter.

Specific comment 9: The SB failed to discuss the presence of a deeper groundwater aquifer or to discuss measures to be taken to assure protection of the deeper aquifer.

EPA response: The SB provides a summary of information that can be found in greater detail in the reports included in the AR for the CSXT Site. Section 4 of the SB provides adequate information to summarize the Site geology, hydrogeology and surface water hydrology based on the findings of the Site investigation work. Additional details regarding the Site geology and stratigraphy (down to 265 ft. below ground surface.), the hydraulic features for these specific geologic units and the nature and extent of groundwater contamination resulting from the former operations are provided in the CMS Report. As stated in the CMS Report, the RFI work evaluated groundwater within two geologic formations and three distinct units or hydrogeologic zones. The results of this work demonstrated that the vertical extent of groundwater impacts is limited in depth to the upper two units because of the presence of an approximately 80 foot thick confining unit that exists below the surface aquifer so that further measures do not appear to be necessary at this time to protect the deeper aquifer. Although the upper portion of this confining

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unit was evaluated during the RFI, no Site-related impacts were detected. Based on this and the results of long-term groundwater monitoring activities conducted at the Site, EPA and CSXT determined that the investigation was complete and the nature and extent of groundwater contamination was sufficiently delineated.

Specific comment 10: EPA failed to clearly establish remedial endpoints for soils and groundwater and EPA failed to establish projected timelines for the alternative technologies evaluated as part of the CMS Report or SB.

EPA response: Section 5 of the SB describes the Action Level Risk Assessment ("ALRA") approach used to identify the areas of the Site that may pose a risk and that require remediation based on the current and reasonably anticipated future receptors identified for the Site. This section also describes the process used to calculate numerical remedial goals ("RGs") and to identify remedial boundaries for soil and groundwater at the Site. These contaminant-specific and media-specific RGs are remediation endpoints or media cleanup targets for soils and groundwater. As noted in Section 5.2 of the SB, a remedial goal for a particular medium is the lowest (therefore the most conservative) contaminant concentration calculated for any receptor. Tables 1 and 2 in the SB clearly identify the RGs for the Site. Figures 3 through 5 of the SB illustrate the areas of the Site where contaminants of concern ("COCs") are present above the RGs established for the Site, and where remedial action is required. During implementation of the remedy, CSXT will be required to demonstrate that the remedial measures have resulted in the attainment of these RGs.

The evaluation of alternative technologies and their expected timelines was discussed in Section 4 of the CMS Report. This section presents the identification and screening of multiple corrective measures technologies based on their potential applicability to Site conditions, COCs, CMOs and RGs. Each technology was screened based on its expected effectiveness, implementability and cost. The consideration of estimated timelines associated with each of these technologies was included as part of the implementability and cost evaluation which is summarized in Table 4-1 of the CMS Report. Section 6 of the CMS Report includes a more refined evaluation of estimated timelines for implementation after the individual technologies were screened and combined into Corrective Measures Alternatives ("CMAs"). The estimated timeline for implementation is one of the technical factors considered as part of the evaluation of each CMA. This evaluation was adequately presented and all required factors were properly discussed in the final CMS Report for the Site.

Specific comment 11: Contaminants of concern ("COCs") in site soils, the transfer of COCs from soils to groundwater, and the evaluation of potential risks resulting from residential and industrial exposures were not properly considered by EPA in reviewing the effectiveness of proposed remedies for the CSXT Site.

EPA response: EPA and CSXT used an acceptable approach and considered all relevant and appropriate factors when evaluating potential remedies to address the nature and extent of contamination present at the Site, the migration pathways and human health and ecological risks associated with this contamination, and the current and reasonably anticipated use of the Site. It is not necessary to use indirect or modeled results to evaluate groundwater contamination and remedial alternatives when a substantial empirical groundwater database for the Site exists. The

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Site risk assessment evaluated both residential and industrial receptors, as well as additional receptors including adolescent trespassers and construction workers.

Specific comment 12: Soils present at the Site above risk-based levels for protection of human health should be either removed or remediated to site-specific endpoints and all contaminated media should be handled in accordance with the RCRA LDR requirements.

EPA response: As proposed in the SB, and as stated herein, the selected remedy requires the remediation of soils that are contaminated above appropriate risk-based levels based on exposure scenarios that are considered realistic for the Site (worker exposure). The primary contaminants in Site soils are not mobile in the environment, and based on the results of long-term groundwater monitoring conducted at the Site, we have not observed a significant migration of soil contaminants to groundwater or significant changes in the extent or magnitude of groundwater contamination. In addition, the existence of a substantial groundwater database obviates the need for use of indirect or modeled results to evaluate groundwater.

As discussed in the SB and in EPA's response to specific comment 5 above, EPA and CSXT determined that the AOC Policy was appropriate for use as a key component of the clean-up strategy developed for the CSXT Site. The AOC Policy allows for consolidation and other *in situ* waste management techniques to be used within an area of generally dispersed contamination, like that which exists at the CSXT Site, without triggering RCRA permitting, LDRs or minimum technology requirements. The multi-component remedy described in the SB is consistent with EPA's AOC Policy.

Specific comment 13: The risk assessment summarized in the CMS is incomplete and not a baseline risk assessment including potential residential uses and fate and transport modeling of COCs from soil to groundwater in accordance with the NCP, RCRA Guidance, and EPA OSWER Directives under CERCLA and RCRA.

EPA response: EPA strives to make RCRA and CERCLA cleanups consistent but this Site is being remediated under RCRA. The risk assessment completed for the CSXT Site evaluated appropriate receptors and pathways based on the current and reasonably anticipated use of the Site, without considering institutional or engineering controls. For soils, realistic exposure scenarios included commercial workers, construction workers, and adolescent trespassers. For groundwater, child and adult residents, lifetime residents, and commercial workers were evaluated. As described in the SB, residential use of groundwater was evaluated, even though this was not considered to be realistic for future use of the Site. Based on the information collected to characterize the Site conditions and identify land uses(s) in the vicinity of the Site, as well as CSXT's plans for reuse of the property, EPA determined that residential use of soil was not a realistic future scenario requiring a detailed evaluation. In addition, EPA did not consider it to be necessary or appropriate to conduct fate and transport modeling to address the soil to groundwater pathway since sufficient empirical data were available to evaluate the extent of groundwater contamination resulting from the previous operations.

The SB and CMS Report provide a summary of the information EPA relied upon to evaluate risks and remedial measures required to return the Site to beneficial use. This approach is consistent with the objectives and requirements of applicable EPA guidance for the RCRA Corrective Action Program.

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Specific comment 14: The groundwater at the Site should be remediated to MCLs and/or risk-based concentrations, throughout the plume, unless determined to be technically and economically impracticable. EPA has a procedure for such a determination which should be followed. The CMS and SB need to more clearly specify which areas of the Site fail the baseline risk assessment for soils (residential use and transfer to groundwater) and the groundwater remediation goals (drinking water use). The timeline to comply with the remediation goals for drinking water use of groundwater throughout the plume in all zones up to the point of compliance of the permitted "RU" needs to be identified.

EPA response: See EPA's response to specific comments 8 and 10, above.

Table 2 of the SB includes contaminant-specific Remedial Goals ("RGs") for Site groundwater which are either MCLs or RGs for contaminants without established MCLs. RGs for contaminants without MCLs also assume domestic use (i.e., drinking water) of groundwater. The selected remedy will ensure that MCLs or RGs will be attained for groundwater outside the slurry wall, and that ICs are established to prohibit the development of onsite wells for drinking water or other domestic uses. The specific time frame needed to meet the groundwater cleanup goals at the Site will be determined as part of the groundwater monitoring program to be conducted during implementation of the remedy.

Any determination of technical or economical impracticability of groundwater cleanup for the Site may be considered by EPA and VADEQ after the remedy is implemented and performance monitoring is conducted to evaluate the estimated time frame for attainment of the remedial goals.

Figures 3 through 5 of the SB clearly illustrate the areas of the Site where contaminants of concern ("COCs") are present above the RGs established for the Site, and where remedial action is required.

Specific comment 15: The SB and CMS Report do not specify the time frame of remediation that will be needed using the proposed methods to meet the remedial risk-based end points for soils or groundwater. The CMS or SB does not sufficiently address the appropriateness of the use of MNA or the time lines for cleanup associated with the clean-up alternatives.

EPA response: See EPA's response to specific comment 10 above, with regard to the evaluation of estimated timelines associated with each of the technologies and corrective measures alternatives (CMAs) presented in the CMS Report.

The appropriateness of using MNA as one part of the groundwater remedy for the Site is discussed in the CMS Report and other reports identified in the AR for the CSXT Site. This information is summarized in Section 6.3.2.4 of the SB. As described in the SB, a groundwater monitoring plan will be developed as part of the documentation required for remedy implementation. This plan will provide more details about the work that will be required to evaluate the rate at which MNA may be occurring in the dissolved phase plume outside the containment area. This plan will also identify alternative measures to be considered and implemented should it be determined that the remedial goals (RGs) for groundwater will not be met via the use of MNA within a reasonable time frame.

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Specific comment 16: The SB does not specify the volume or mass of contaminated soils or media that is contaminated at the site or the volume or mass of contaminated soils or media that is proposed to be consolidated or "placed" and disposed in a proposed land-based unit on-site. The EPA proposes to leave a significant amount of contaminated soils and groundwater remaining at the site untreated in a unit that does not meet land-based RCRA landfill criteria or EPA's LDR requirements.

EPA response: The SB provides a summary of information that can be found in greater detail in the CMS and other reports included in the AR for the CSXT Site. Section 3.4 of the CMS Report provides a detailed discussion of the area and volume of media (soil, sediment, groundwater) that will be addressed as part of remedy implementation. This information was based on the findings of the RFI sampling work, and will be further refined during the preparation of design documents for remedy implementation.

See EPA's response to general comment 3 above, with regard to the remedial strategy developed for the CSXT Site. See EPA's response to specific comment 5 above, with regard to the use of EPA's AOC Policy as a key component of the clean-up strategy for the CSXT Site.

Specific comment 17: The AOCs and SWMUs at the site are clearly non-contiguous, therefore EPA's proposed use of AOC management is inappropriate.

EPA response: See EPA's response to specific comment 5 above, with regard to the use of the AOC Policy as a key component of the clean-up strategy for the CSXT Site.

EPA and CSXT determined that the AOC Policy was appropriate for use as a key component of the clean-up strategy developed for the CSXT Site. The AOC Policy allows for consolidation and other *in situ* waste management techniques to be used within an area of generally dispersed contamination, like that which exists at the CSXT Site, without triggering RCRA permitting, LDRs or minimum technology requirements. The multi-component remedy described in the SB is consistent with EPA's AOC Policy as well as the objectives and requirements of applicable guidance and policy for the RCRA Corrective Action Program.

Specific comment 18: EPA's proposed remedy is better defined as a Corrective Action Management Unit ("CAMU") and consequently, the materials must be subject to treatment standards identical to EPA's LDR standards prior to permanent disposal in a CAMU. The SB needs to be withdrawn and the CMS revised to reflect all ARARs.

EPA response: Section 3.1.2.2 of the CMS Report includes a summary and discussion of the CAMU regulations. While we considered the use of a CAMU at the Site, EPA chose to use the AOC Policy as a key component of the remedial strategy. This strategy will facilitate the timely yet protective implementation of a remedy that is consistent with the Site-specific corrective measures objectives, future land use plans, and CSXT's desire to return the Site to beneficial use.

Specific comment 19: EPA's proposed remedy is not in accordance with EPA's Presumptive Remedies Guidance for Wood Treating Sites.

EPA response: Section 3.1.1 of the CMS Report includes a summary and discussion of this EPA guidance document. EPA, VADEQ and CSXT considered this guidance document along with many other guidance documents when preparing a strategy for remediating the conditions at the

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CSXT Site. However, EPA ultimately made a site-specific remedy decision that best met the corrective measures objectives established for the CSXT Site and that could return the Site to beneficial use in a reasonable time frame.

Specific comment 20: EPA's remedy is biased toward containment and MNA rather than treatment and destruction of highly toxic wastes, and has not been clearly justified by the CMS. The facility did not use the proper criteria to evaluate remedial alternatives in the CMS Report, and the ranking of each alternative appears to be arbitrary.

EPA response: See EPA's response to general comment 3, above.

The remedy proposed and selected by EPA for the CSXT Site includes source removal and source control components as well as in-situ treatment, monitored natural attenuation and institutional controls. This remedial strategy was thoroughly evaluated in the Corrective Measures Study Report in accordance with the appropriate remedy selection criteria, and is consistent with the objectives and requirements of applicable EPA guidance for the RCRA Corrective Action program.

Declaration

Based on the Administrative Record compiled for the corrective action at the CSXT Facility, I have determined that the remedy selected is protective of human health and the environment.

Date: 12/21/09

Abraham Ferdas, Director
Land and Chemicals Division
U.S. Environmental Protection Agency, Region III

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EXHIBIT D

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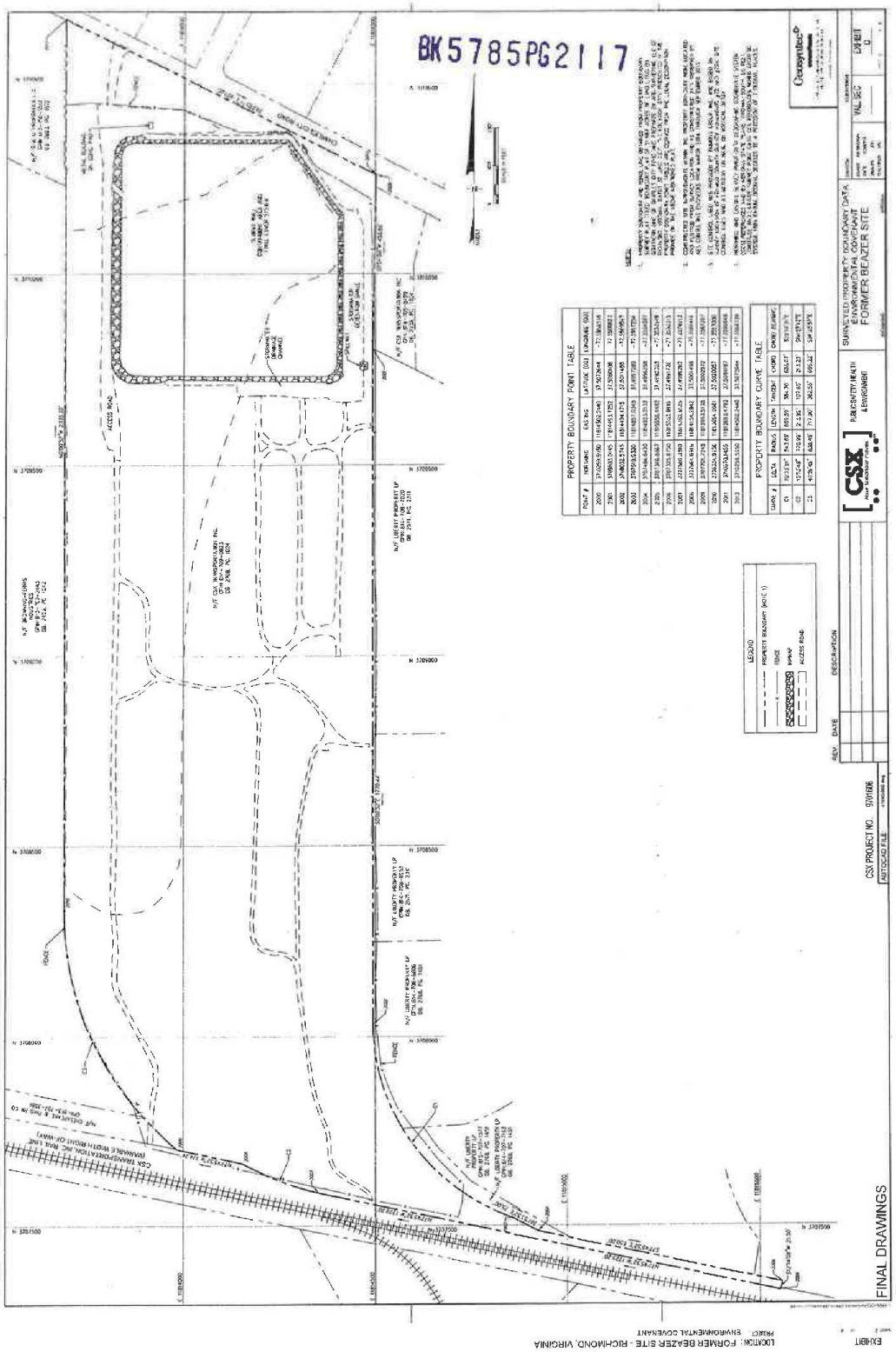
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FENCE
WETLAND
ACCESS ROAD
SURVEYED PROPERTY BOUNDARY DATA
ENVIRONMENTAL COVENANT
FORMER BEAZER SITE
PUBLIC SAFETY, HEALTH & ENVIRONMENT
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AUTOCAD FILE
FINAL DRAWINGS
EXHIBIT
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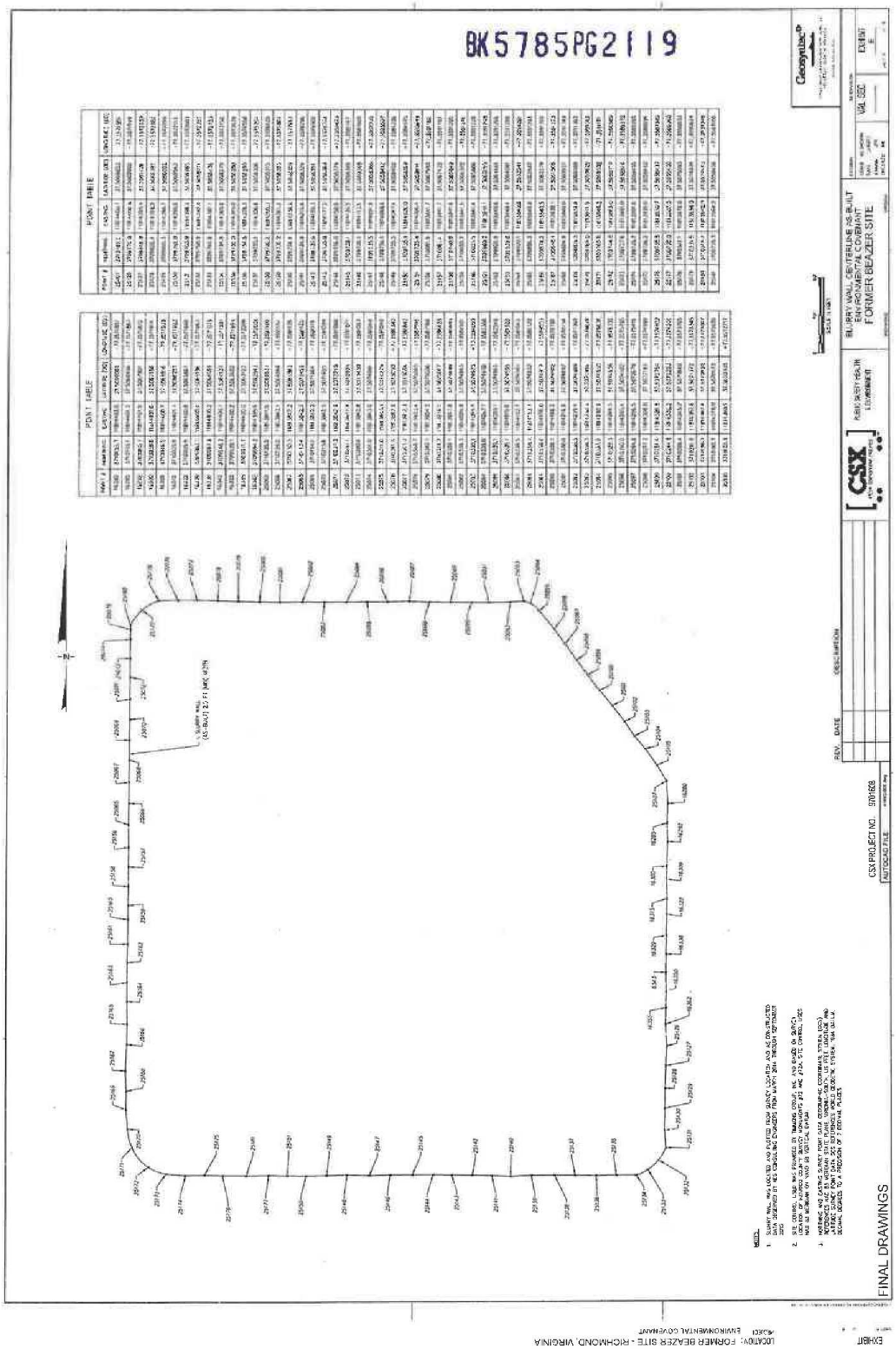
PROJECT: ENVIRONMENTAL COVENANT

BK5785PG2118

EXHIBIT E

1824378_1.docx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FORMER BEAZER SITE
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AUTOCAD FILE
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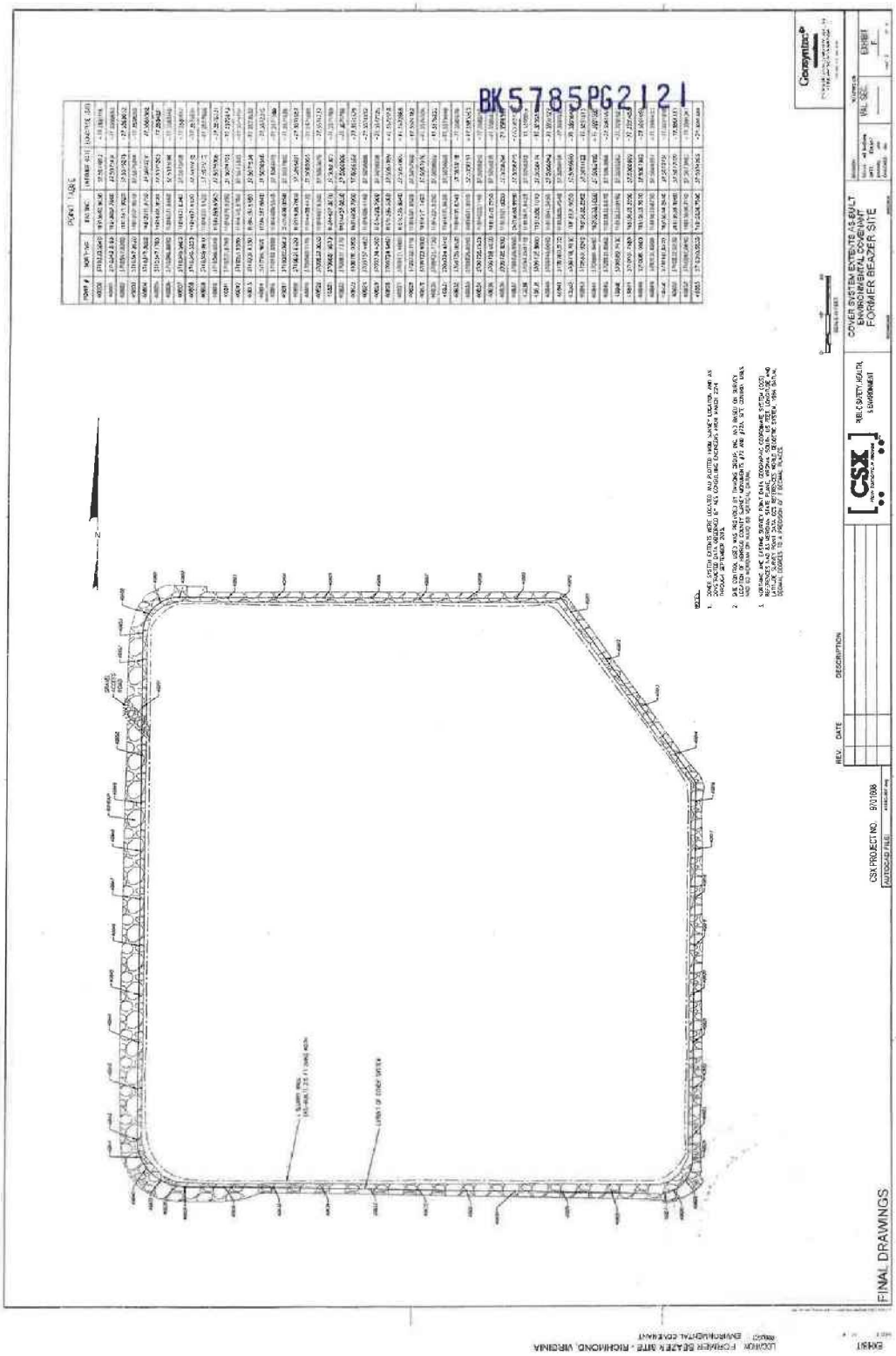
EXHIBIT

BK5785PG2120

EXHIBIT F

1824378_1.docx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FINAL DRAWINGS
CSX
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FORMER BEAZER SITE
DESCRIPTION
DATE
REV.
CSX PROJECT NO. 97/1998
EXHIBIT
LOCATION: FORMER BEAZER SITE - RICHMOND, VIRGINIA
ENVIRONMENTAL COVENANT

RECEIVED
JUL 27 2018

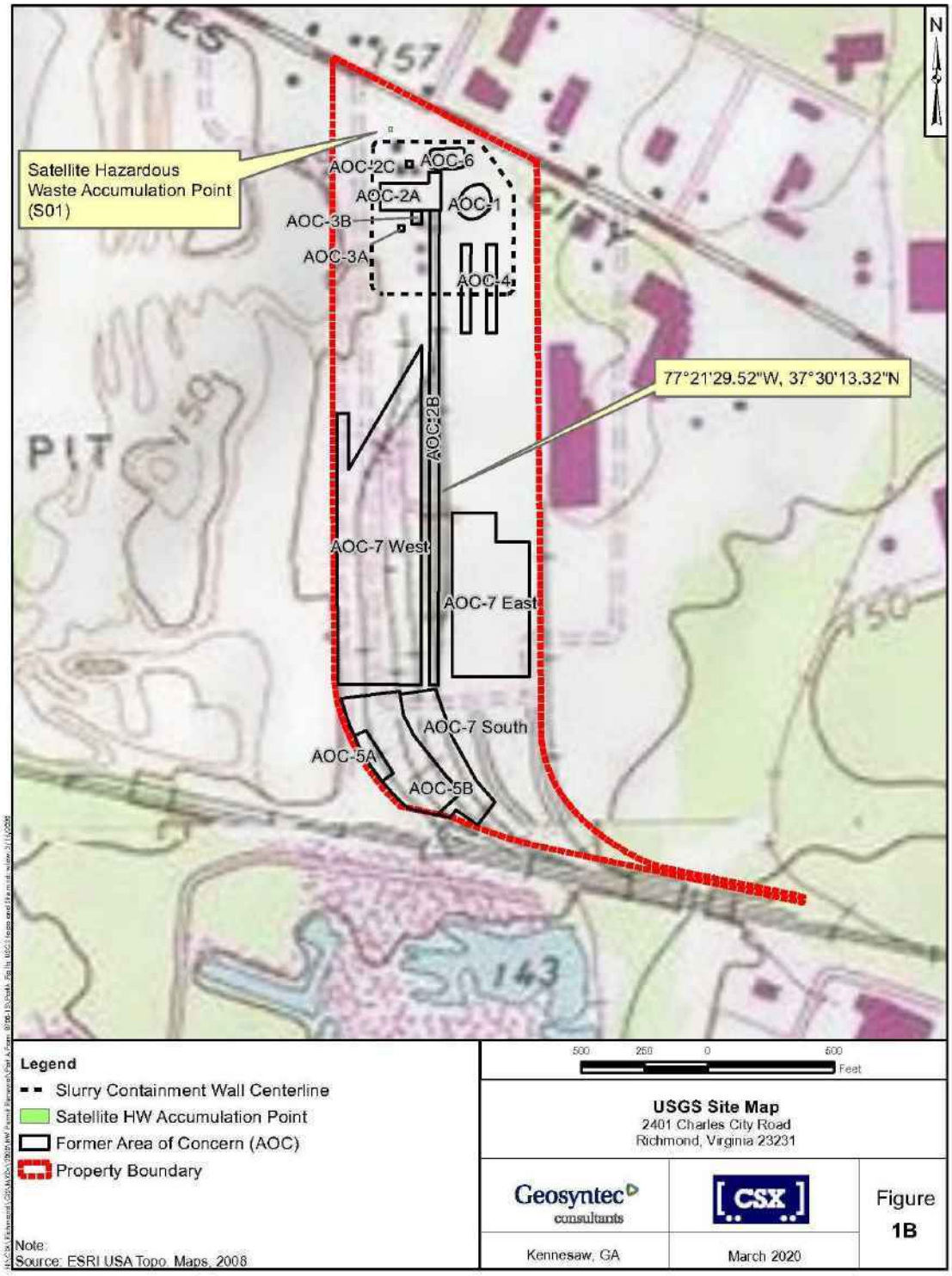
BK5785PG2122

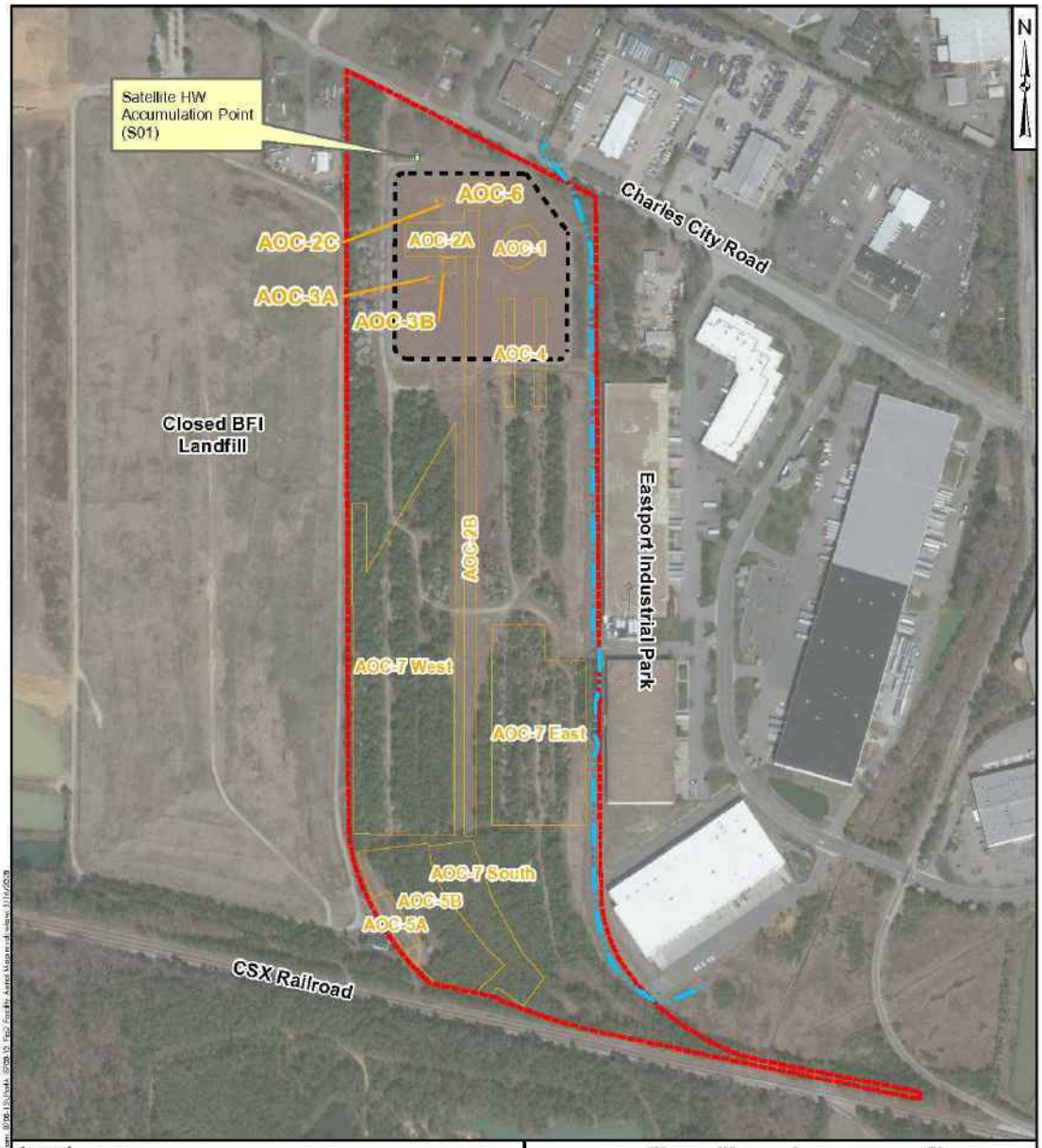
CLERK'S CERTIFICATE

DO NOT REMOVE FROM DOCUMENT

INSTRUMENT # 201800030919
RECORDED IN THE CLERK'S OFFICE OF
HENRICO COUNTY ON
OCTOBER 2, 2018 AT 10:48AM

HEIDI S. BARSHINGER, CLERK
RECORDED BY: TJJ


N
Satellite Hazardous Waste Accumulation Point (S01)
AOC-2C
AOC-6
AOC-2A
AOC-1
AOC-3B
AOC-3A
AOC-4
77°21'29.52"W, 37°30'13.32"N
AOC-2B
AOC-7 West
AOC-7 East
AOC-7 South
AOC-5A
AOC-5B
PIT
157
150
143
Legend
Slurry Containment Wall Centerline
Satellite HW Accumulation Point
Former Area of Concern (AOC)
Property Boundary
Note:
Source: ESRI USA Topo Maps, 2008
500 250 0 500
Feet
USGS Site Map
2401 Charles City Road
Richmond, Virginia 23231
Geosyntec consultants
CSX
Figure 1B
Kennesaw, GA
March 2020



Legend

- Slurry Wall Containment Area
- Eastern Drainage Ditch (EDD)
- Satellite Hazardous Waste Accumulation Point
- Property Boundary
- Former Area of Concern (AOC)

Note: The satellite hazardous waste accumulation point drum (S01) is stored within a chemical cabinet with adequate secondary containment storage. The cabinet is stored within a locked fully enclosed shed.

Source: ESRI World Imagery, March 17, 2019

450 225 0 450 Feet

Facility Aerial Map
2401 Charles City Road
Richmond, Virginia 23231

Geosyntec consultants | CSX | Figure 2

Kennesaw, GA | March 2020