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No. of Pages: 41
Nora Dietzel, Recorder of Deeds

(ABOVE SPACE RESERVED FOR RECORDER'S USE)

Document Title: Environmental Covenant

Document Date: SEPTEMBER 7, 2018

Grantor: Union Electric Co. d/b/a Ameren Missouri, Real Estate Dept., 1901 Chouteau Avenue, St. Louis, MO 63103-3003

Grantee: Union Electric Co. d/b/a Ameren Missouri, Real Estate Dept., 1901 Chouteau Avenue, St. Louis, MO 63103-3003

Department: Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, Missouri 65102

Legal Description: A tract of land in the west half of the northwest quarter of the southwest quarter of Section 7, T48N, R12W, Boone County, Missouri, being the composite tract described by deeds recorded in Book 174, page 14; in book 182, page 151; in book 187, page 266; in book 363, pages 272, 273, and 274, all being contained in the 1.01 acre tract shown and described by a survey recorded in book 432, page 701, including lot 2, Judge and Sims subdivision, Columbia, Missouri;

Also being the composite tract described by deeds recorded in book 406, page 891; in book 680, page 165 and corrected in book 700, page 590; in book 684, page 771; and in book 907, page 36, all being Boone County survey #5274 and that tract lying between said county survey and said 1.01 acre survey as described by said deed recorded in book 407, page 891; and lots 1, 3, 4 and the unnamed lot lying east of and abutting said lot 4 of Judge and Sims subdivision as shown in plat book 3, page 19, all of the Boone county records;

Comprising 2.14 acres more or less.

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ENVIRONMENTAL COVENANT

This Environmental Covenant is entered into by and between the Grantor Union Electric Company d/b/a Ameren Missouri ("Owner"), the Grantee, Ameren Missouri ("Holder") and the Missouri Department of Natural Resources ("Department"), pursuant to the Missouri Environmental Covenants Act, Sections 260.1000 through 260.1039, RSMo and Missouri Risk Based Corrective Action Rules, 10 CSR 25-18.010. Owner, Holder, and the Department may collectively be referred to as the "Parties" herein.

RECITALS

WHEREAS, Owner is the owner in fee simple of certain real property commonly known and numbered as Columbia Coal Gas - East Parcel, 210 Orr St., Columbia, Missouri, shown on the survey attached hereto as Exhibit A, and legally described as:

A tract of land in the west half of the northwest quarter of the southwest quarter of Section 7, T48N, R12W, Boone County, Missouri, being the composite tract described by deeds recorded in Book 174, page 14; in book 182, page 151; in book 187, page 266; in book 363, pages 272, 273, and 274, all being contained in the 1.01 acre tract shown and described by a survey recorded in book 432, page 701, including lot 2, Judge and Sims subdivision, Columbia, Missouri;

Also being the composite tract described by deeds recorded in book 406, page 891; in book 680, page 165 and corrected in book 700, page 590; in book 684, page 771; and in book 907, page 36, all being Boone County survey #5274 and that tract lying between said county survey and said 1.01 acre survey as described by said deed recorded in book 407, page 891; and lots 1, 3, 4 and the unnamed lot lying east of and abutting said lot 4 of Judge and Sims subdivision as shown in plat book 3, page 19, all of the Boone county records;

Comprising 2.14 acres more or less.

Hereinafter referred to as the "Property;"

WHEREAS, the Property is situated in Boone County;

WHEREAS, Owner desires to grant to the Holder this Covenant for the purpose of subjecting the Property to certain activity and use limitations as provided in the Missouri Environmental Covenants Act;

WHEREAS, the Missouri Department of Natural Resources enters into this covenant as a "department" pursuant to the Missouri Environmental Covenants Act, Sections 260.1000 through 260.1039 RSMo, with all the attendant rights of a "department" under such Act, which include but are not limited to having a right to enforce this Covenant;

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WHEREAS, Holder enters into this covenant as a "holder" pursuant to the Missouri Environmental Covenants Act, with all the attendant rights of a "holder" under such Act, which include but are not limited to acquiring an interest in the Property and a right to enforce this Covenant;

WHEREAS, Ameren Missouri entered into a Letter of Agreement ("Agreement") for the Property pursuant to the Brownfields/Voluntary Cleanup Program (BVCP), § 260.565, et seq., RSMo. This Agreement requires an Environmental Covenant to be filed with the appropriate recorder of deeds for the Property in the event that chemicals of concern remain at the site above standards that are protective of unrestricted land use, following the investigation and remediation of the site under the BVCP.

WHEREAS, the environmental response project conducted at the Property included the following activities:

- Site investigations revealed that portions of the property contained manufactured gas plant (MGP) related materials as a result of the MGP operations.

- Ameren Missouri excavated and disposed of approximately 30,000 tons of contaminated soil and debris from the site at an approved landfill, removing the majority of contaminant mass from the site. The depth of the excavations varied from 14 to 21 ft. below grade. The excavations were backfilled with clean quarry rock.

- Groundwater investigations detected low levels of dissolved contaminants in shallow (overburden) groundwater that were determined not to pose a health risk provided groundwater is not used.

- Risk assessment was performed according to requirements contained in the Missouri Risk Based Corrective Action Guidance (MRBCA, 2006).

WHEREAS, upon completion of the environmental response project described above, contaminants of concern (COCs), which include, but may not be limited to benzene, naphthalene, polycyclic aromatic hydrocarbons (PAH), gasoline range organics (GRO) and diesel-range organics (DRO), will remain on the Property above levels that allow for the unrestricted use of the Property and for other uses in certain areas:

- Confirmation samples collected from the walls and floor of the excavations were compared to Missouri Risk-Based Corrective Action (MRBCA, 2006) Tier 1 Risk-Based Target Levels (RBTLs) for residential and non-residential use and for construction worker exposure. Overall averages met the RBTLs for non-residential and construction worker exposure. Individual samples in some areas exceeded the RBTLs.

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- Polycyclic aromatic hydrocarbons (PAH) and arsenic in surface soils in certain areas exceed RBTLs for direct exposure in a non-residential setting.

- Certain volatile COCs, such as benzene, exceeded RBTLs for subsurface soil in a residential setting based on the potential risk of vapor intrusion, at locations around the perimeter of the excavation, potentially posing a risk to any future buildings built in those areas.

WHEREAS, the remedies described above are deemed protective provided that the protective measures described in this Covenant remain in place for as long as the contaminants of concern remain at the Property.

NOW THEREFORE, Owner, Holder and the Department agree to the following:

1. **Parties.**
Owner, Holder and Department are parties to this Environmental Covenant and may enforce it as provided in Section 260.1030, RSMo.

2. **Activity and Use Limitations.**
Owner hereby subjects the Property to, and agrees to comply with, the following activity and use limitations:

A. Non-Residential Use

Based on reports on file at the Department's offices in Jefferson City, Missouri, the Property currently meets the Department's standards for non-residential use. Therefore, COCs remaining at the Property do not pose a significant current or future risk to human health or the environment so long as the following restrictions remain in place:

The Property **shall not** be used for residential purposes, which for purposes of this Covenant include but are not limited to: single family homes, duplexes, multi-plexes, apartments, condominiums, schools, child-care facilities, or any land use where persons can be expected to reside.

B. Soil Disturbance Restrictions

Based on reports on file at the Department's offices in Jefferson City, Missouri, contaminants of concern remain at specific locations on the Property, as shown in the Site Management Plan (the Plan) attached hereto as Exhibit B and which is hereby incorporated by reference. Such COCs are in

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excess of the Department's standards for non-residential use and for construction worker exposure.

The COCs do not pose a significant current or future risk to human health or the environment with respect to non-residential uses of the property provided that soil at the site is not disturbed in a manner in which exposures could result.

Therefore, soil on the Property shall only be excavated or otherwise disturbed accordance with the Department-approved Plan.

Contaminated soil may be disturbed if necessary during an emergency (such as water or gas main break, fire, explosion or natural disaster), in which case the Owner/Transferee shall ensure that notification is provided to the Department and Holder verbally or in writing as soon as practicable, but no later than 48 hours after the disturbance. Any contaminated soil disturbed as part of an emergency response action must be returned to its original location and depth, or properly characterized, managed and disposed of, in accordance with all applicable local, state, and federal requirements. Within 30 days after such emergency has been abated, the Owner/Transferee shall provide a written report describing such emergency and any response actions.

C. Construction of Enclosed Buildings

Residual concentrations of volatile organic contaminants, including but not necessarily limited to benzene, exceed MRBCA RBTLs for subsurface soil for non-residential use in certain areas and depths on the Property. Due to the depth (10-18 ft. below grade) of the residual contaminants, it is likely that only buildings constructed with basements would be at risk. However, it is recognized that vapor intrusion risk for future buildings would be best evaluated through soil vapor sampling based on the location and design of the building relative to the location of residual contaminants. Therefore, construction of any new enclosed building or modifications to existing buildings in the areas shown in the Plan, is allowed only with prior written approval from the Department after further evaluation by Owner/Transferree.

The approval process may require, but not necessarily be limited to, the following activities:

- Sampling to evaluate current site conditions;

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- Risk assessment based on the proposed building design, location, and use, COC concentrations, and standards in place at the time of the evaluation; and
- Department approval of a risk management plan (which may include remediation of COCs and/or installation of a vapor mitigation system), if required based on the aforementioned evaluation.

Owner/Transferee is responsible for conducting activities as requested by the department to support a request for construction approval. Based on the potential hazards associated with the proposed construction, the Department may approve or deny the construction, or may require protective or remedial actions before allowing construction to occur. Construction shall not be initiated prior to receipt of written approval from the Department.

D. Construction Worker Notice

Residual COC concentrations were below MRBCA RBTLs for construction worker exposure at depths of 0-10 ft. This zone is considered the standard construction depth zone under MRBCA.

Residual COC concentrations exceeded the construction worker RBTLs in some wall samples at depths greater than 10 ft. below grade.

In the event that construction or excavation work is to be performed in the areas shown in the Plan, at depths greater than 10 ft., that may expose workers to contaminated soil, Owner/Transferee shall ensure that actual notice is provided in advance, both verbally and in writing, to any person or entity performing any work that will or is likely to result in exposure to such soil, so that appropriate protective measures are taken to protect worker health and safety in accordance with applicable health and safety laws and regulations. Such notice shall include, but is not necessarily limited to, providing a copy of this Covenant and the Site Management Plan to any individuals conducting or otherwise responsible for the work. Owner/Transferee shall maintain copies of any such written notice for a period of at least three years, and shall provide copies of such records to the Department and/or Holder upon request.

E. No Drilling or Use of Groundwater

Based on reports on file at the Department's offices in Jefferson City, Missouri, contaminants of concern including but not necessarily limited to benzene and naphthalene, were detected in shallow (overburden) groundwater

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beneath the Property at levels exceeding the Department's standards for groundwater use.

Therefore, in addition to any applicable state or local well construction or groundwater use restrictions, the following restrictions shall apply to the Property:

1) Groundwater shall not be consumed or otherwise used for any purpose, except for the collection of samples for environmental analysis purposes, collection or treatment of groundwater for remedial purposes, or collection or treatment of groundwater as part of excavation or construction activities.

2) There shall be no drilling or other artificial penetration of any groundwater-bearing unit(s) containing contaminants, unless performed in accordance with a Department-approved work plan, except that drilling or excavation for the installation of foundations or piers to depths at or above the top of competent bedrock is permitted without prior approval by the Department.

3) Installation of any new groundwater wells on the Property is prohibited, except for wells used for investigative, monitoring and/or remediation purposes installed in accordance with a Department-approved work plan.

If any person desires in the future to use the Property for any purpose or in any manner that is prohibited by this Covenant, the Department and the Holder must be notified in advance so that a Modification, Temporary Deviation, or Termination request can be considered as described below. Further analyses and/or response actions may be required prior to any such use.

The Department may charge Owner/Transferee the costs incurred by the Department for oversight of activities for which the Plan requires Department review and approval. Costs may be incurred regardless of whether such activities are approved, denied or withdrawn.

3. Running with the Land.

This Covenant shall be binding upon Owner and Owner's heirs, successors, assigns, and other transferees in interest (collectively referred to as "Transferees") during their period of ownership, and shall run with the land, as provided in Section 260.1012, RSMo, subject to amendment or termination as set forth herein. The term "Transferee(s)," as used in this Covenant, shall mean any future owner

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of any interest in the Property or any portion thereof, including, but not limited to, owners of an interest in fee simple, mortgagees (subject to applicable lender liability protections prescribed by law), easement holders, and/or lessees.

4. **Location of Files and Records.**
Records of this environmental response project for the Property are currently located in the Department's offices in Jefferson City, Missouri. Information regarding the project may be obtained from the Department through a request under Chapter 610 RSMo, commonly referred to as the Missouri Sunshine Law, to the Department's Custodian of Records, referencing the site identification name of Columbia Coal Gas - East Parcel.

5. **Enforcement.**
Compliance with this Environmental Covenant may be enforced as provided in Section 260.1030, RSMo. Failure to timely enforce compliance with this Covenant or the activity and use limitations contained herein by any party shall not bar subsequent enforcement by such party and shall not be deemed a waiver of the party's right to take action to enforce any non-compliance. Nothing in this Environmental Covenant shall restrict any person from exercising any authority under any other applicable law.

In addition to or in lieu of any other remedy authorized by law, prior to taking legal action to enforce this Covenant, the Department may require Owner/Transferee to submit a plan to investigate and/or correct any alleged violation of this Covenant. If such Owner/Transferee fails to act within the required timeframe or if the Department finds a proposed remedy unacceptable, the Department may pursue any remedy authorized by law.

6. **Right of Access.**
Owner, on behalf of itself and any Transferees, hereby grants to the Holder and the Department and their respectively authorized agents, contractors, and employees, the right to access the Property at all reasonable times for implementation, monitoring, inspection, or enforcement of this Covenant and the related environmental response project. Nothing herein shall be deemed to limit or otherwise impede the Department's rights of access and entry under federal or state law or other agreement.

7. **Compliance Reporting.**
Owner/Transferee shall submit to Holder and the Department, by no later than January 31st of each year, documentation verifying that the activity and use limitations imposed hereby were in place and complied with during the preceding

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calendar year. The Compliance Report shall include the following statement, signed by Owner/Transferee:

> I certify that to the best of my knowledge, after thorough evaluation of appropriate facts and information, the information contained in or accompanying this submission is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

In the event that an Owner, Transferee, or Holder becomes aware of any noncompliance with the activity and use limitations described in paragraph 2 above, such person or entity shall notify all other Parties to this Covenant in writing as soon as possible, but no later than 10 business days thereafter.

8. Notice upon Conveyance.
Each instrument hereafter conveying any interest in the Property or any portion of the Property shall contain a notice of the activity and use limitations set forth in this Covenant, and provide the recording reference for this Covenant. The notice shall be substantially in the following form:

THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL COVENANT, DATED _____,20__, RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF _____ COUNTY, _____, ON _____, 20__, AS DOCUMENT ____, BOOK___, PAGE ____.

Owner/Transferee shall notify the Holder and the Department within ten (10) days following each conveyance of an interest in any portion of the Property. The notice shall include the name, address, and telephone number of the Transferee, and a copy of the deed or other documentation evidencing the conveyance.

9. Representations and Warranties.
Owner hereby represents and warrants to the Holder and the Department that:

A. Owner has the power and authority to enter into this Covenant, to grant the rights and interests herein provided and to carry out all of Owner's obligations hereunder;
B. That Owner is the sole owner of the Property and holds fee simple title, which is free, clear and unencumbered; and
C. That this Environmental Covenant will not materially violate or contravene or constitute a material default under any other agreement,

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document or instrument to which Owner is a party or by which Owner may be bound or affected.

10. Amendment or Termination.
This Covenant may be amended or terminated by approval of the Department and the current Owner/Transferee of record at the time of such amendment or termination, pursuant to section 260.1027 RSMo. Any other Parties to this Covenant hereby waive the right to consent to any amendment to, or termination of, this Covenant. Following signature by all requisite persons or entities on any amendment or termination of this Covenant, Owner/Transferee shall record and distribute such documents as described below.

Temporary deviations from the obligations or restrictions specified in this Covenant may be approved by the Department in lieu of a permanent amendment to this Covenant. Owner/Transferee may submit a written request to the Department to temporarily deviate from specified requirements described herein for a specific purpose and timeframe, which shall not exceed ninety (90) days. Any such request shall be transmitted to the Holder and the Department as described below. The request must specifically invoke this paragraph of this Covenant, fully explain the basis for such temporary deviation, and demonstrate that protection of human health and the environment will be maintained. The Department shall evaluate the request and convey approval or denial in writing. Owner/Transferee may not deviate from the requirements of this Covenant unless and until such approval has been obtained.

11. Severability.
If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

12. Governing Law.
This Covenant shall be governed by and interpreted in accordance with the laws of the State of Missouri.

13. Recordation.
Within thirty (30) days after the date of the final required signature upon this Covenant or any amendment or termination thereof, Owner shall record this Covenant with the appropriate recorder of deeds for each county in which any portion of the Property is situated. Owner shall be responsible for any costs associated with recording this Covenant.

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14. Effective Date.
The effective date of this Environmental Covenant shall be the date upon which the fully executed Environmental Covenant has been recorded with the office of the recorder of the county in which the Property is situated.

15. Distribution of Environmental Covenant.
Within thirty (30) days following the recording of this Covenant, or any amendment or termination of this Covenant, Owner/Transferee shall, in accordance with Section 260.1018, RSMo, distribute a file- and date-stamped copy of the Covenant as recorded with the appropriate recorder of deeds (including book and page numbers) to: (a) each of the Parties hereto; (b) each person holding a recorded interest in the Property, including any mortgagees or easement holders; (c) each person in possession of the Property; (d) each municipality or other unit of local government in which the Property is located; and (e) any other person designated by the Department.

16. Contact Information.
Any document or other item required by this Covenant to be given to another party hereto shall be sent to:

<u>If to Owner/Transferee</u>:
Ameren Services Company
Real Estate Director
PO Box 66149
Mail Code 700
St Louis, MO 63166

<u>If to Holder:</u>
Ameren Services Company
Real Estate Director
PO Box 66149
Mail Code 700
St Louis, MO 63166

<u>If to Department</u>:
Project Manager – Columbia Coal Gas - East Parcel
Brownfields/Voluntary Cleanup Section
Hazardous Waste Program
PO Box 176
Jefferson City, MO 65102-0176

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Owner/Transferee, Holder, or the Department may change the designated recipient of such notices by providing written notice of the same to each other. If the Department provides notice to a former Owner/Transferee, then such Owner/Transferee shall so notify both the Department and the current Owner/Transferee of the Property.

17. Reservation of Rights.

This Covenant is a necessary component of the environmental response project described above. Nothing in this Covenant shall be construed so as to relieve any Owner/Transferee from the obligation to comply with this Covenant during their period of ownership, or with any other source of law. This Covenant is not a permit, nor does it modify any permit, order, agreement, decree, or judgment issued under any federal, State, or local laws or regulations, and the Department does not warrant or aver in any manner that an Owner/Transferee's compliance with any aspect of this Covenant will result in compliance with any such requirements. The Department reserves all legal and equitable remedies available to enforce the provisions of this Covenant or any other legal requirement, and/or to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, the Property. Nothing herein shall be construed so as to prevent the Department or Holder from taking any independent actions as allowed by law.

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The undersigned represent and certify that they are authorized to sign this Covenant on behalf of their respective Parties.

IT IS SO AGREED:

FOR OWNER:

By: _____ Date: August 21, 2018

Dave Palmer, Manager
~~Environmental Assessments~~ REMEDIATION PROJECTS
Ameren Services
1901 Chouteau Ave
Env. Services Dept., MC 602
St. Louis, MO 63103-3003

STATE OF Missouri)
)
COUNTY OF St Louis)

On this 21st day of August, 2018, before me a Notary Public in and for said state, personally appeared Dave Palmer Manager, ~~Environmental Assessments~~ REMEDIATION PROJECTS of Ameren Missouri, known to me to be the person who executed the within Covenant in behalf of said corporation and acknowledged to me that he/she executed the same for the purposes therein stated.

Notary Public

DEBRA K. PATTERSON
Notary Public - Notary Seal
State of Missouri
Commissioned for St. Louis County
My Commission Expires: October 31, 2020
Commission Number: 12482292

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FOR HOLDER(S)

By: _____ Date: 8/22/2018

Dennis Weisenborn
Vice President
Ameren Missouri
1901 Chouteau Ave
MC 1100
St. Louis, MO 63103-3003

STATE OF Missouri)
)
COUNTY OF St. Louis)

On this 22nd day of August, 2018, before me a Notary Public in and for said state, personally appeared Dennis Weisenborn, Vice President of Ameren Missouri, known to me to be the person who executed the within Environmental Covenant in behalf of said corporation and acknowledged to me that he/she executed the same for the purposes therein stated.

_____
Notary Public

DEBRA K. PATTERSON
Notary Public - Notary Seal
State of Missouri
Commissioned for St. Louis County
My Commission Expires: October 31, 2020
Commission Number: 12482292

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FOR DEPARTMENT

By: _____ Date: 8/3/2018

John Jurgensmeyer, Director
Hazardous Waste Program
Missouri Department of Natural Resources
PO Box 176
Jefferson City, MO 65102-0176

STATE OF MISSOURI)
)
COUNTY OF Cole)

On this 3rd day of August, 2018, before me a Notary Public in and for said state, personally appeared John Jurgensmeyer, Director of the Hazardous Waste Program of the Missouri Department of Natural Resources, a state agency, known to me to be the person who executed the within Environmental Covenant in behalf of said agency by authority of its Director and acknowledged to me that he executed the same for the purposes therein stated.

Penny S. Moore
Notary Public

PENNY S. MOORE
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: February 01, 2021
Commission Number: 17900974

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EXHIBIT A

Site Survey

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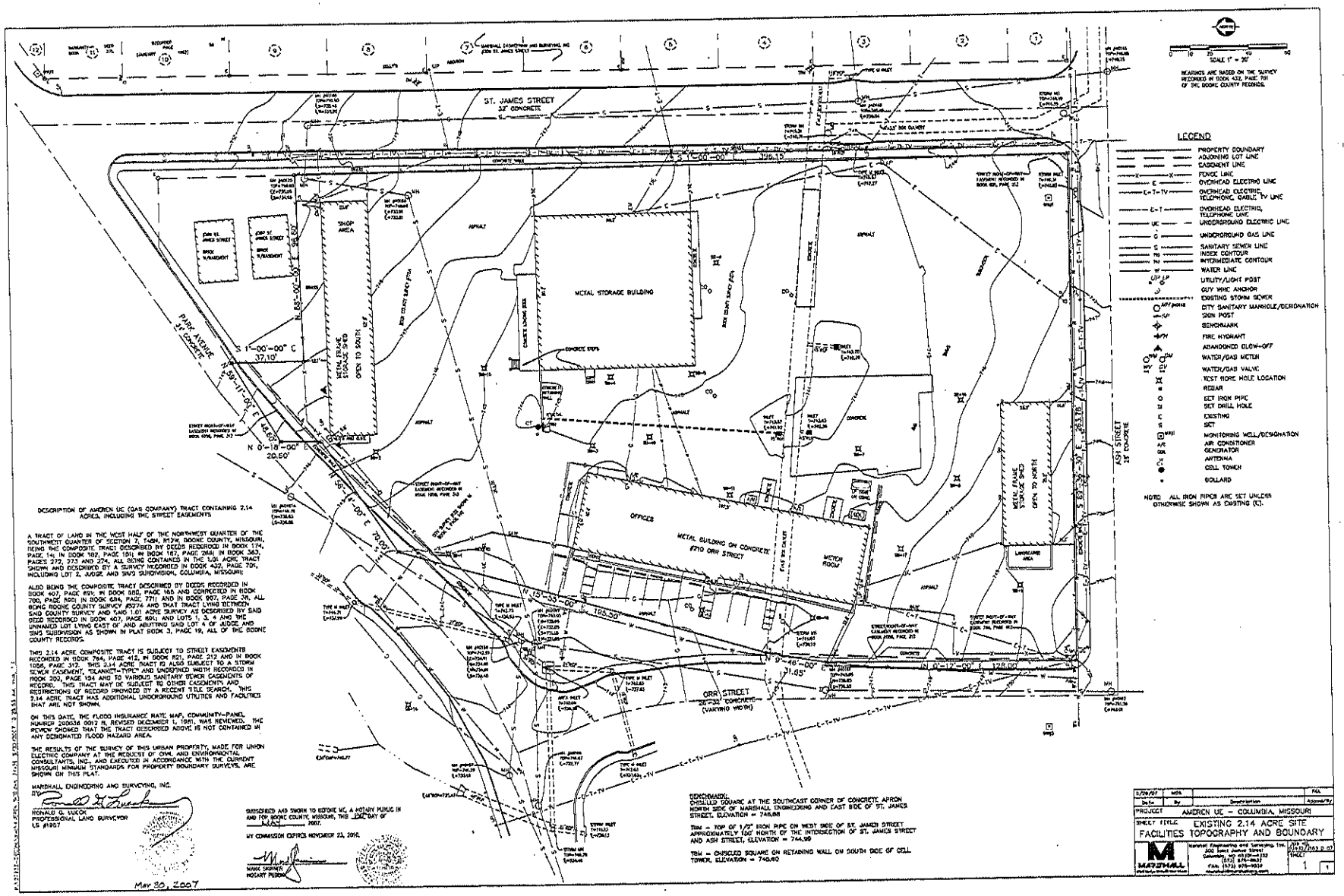

DESCRIPTION OF AMEREN UE (GAS COMPANY) TRACT CONTAINING 2.14 ACRES, INCLUDING THE STREET EASEMENTS

A TRACT OF LAND IN THE WEST HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 7, T48N, R13W, BOONE COUNTY, MISSOURI, BEING THE COMPOSITE TRACT DESCRIBED BY DEEDS RECORDED IN BOOK 174, PAGE 141 IN BOOK 187, PAGE 181; IN BOOK 187, PAGE 264; IN BOOK 343, PAGES 272, 273 AND 274; ALL BEING CONTAINED IN THE 1.01 ACRE TRACT SHOWN AND DESCRIBED BY A SURVEY RECORDED IN BOOK 432, PAGE 701, INCLUDING LOT 2, JUDGE AND SIMS SUBDIVISION, COLUMBIA, MISSOURI;

ALSO BEING THE COMPOSITE TRACT DESCRIBED BY DEEDS RECORDED IN BOOK 407, PAGE 601; IN BOOK 580, PAGE 165 AND CORRECTED IN BOOK 700, PAGE 800; IN BOOK 614, PAGE 771; AND IN BOOK 907, PAGE 34, ALL BEING BOONE COUNTY SURVEY #5274 AND THAT TRACT LYING BETWEEN SAID COUNTY SURVEY AND SAID 1.01 ACRE SURVEY AS DESCRIBED BY SAID DEED RECORDED IN BOOK 407, PAGE 601; AND LOTS 1, 3, 4 AND THE UNNAMED LOT LYING EAST OF AND ABUTTING SAID LOT 4 OF JUDGE AND SIMS SUBDIVISION AS SHOWN IN PLAT BOOK 3, PAGE 19, ALL OF THE BOONE COUNTY RECORDS.

THIS 2.14 ACRE COMPOSITE TRACT IS SUBJECT TO STREET EASEMENTS RECORDED IN BOOK 764, PAGE 412, IN BOOK 821, PAGE 212 AND IN BOOK 1056, PAGE 317. THIS 2.14 ACRE TRACT IS ALSO SUBJECT TO A STORM SEWER EASEMENT, "BLANKET-TYPE" AND UNDEFINED WIDTH RECORDED IN BOOK 200, PAGE 134 AND TO VARIOUS SANITARY SEWER EASEMENTS OF RECORD. THIS TRACT MAY BE SUBJECT TO OTHER EASEMENTS AND RESTRICTIONS OF RECORD PROVIDED BY A RECENT TITLE SEARCH. THIS 2.14 ACRE TRACT HAS ADDITIONAL UNDERGROUND UTILITIES AND FACILITIES THAT ARE NOT SHOWN.

ON THIS DATE, THE FLOOD INSURANCE RATE MAP, COMMUNITY-PANEL NUMBER 290036 0002 B, REVISED DECEMBER 1, 1981, WAS REVIEWED. THE REVIEW SHOWED THAT THE TRACT DESCRIBED ABOVE IS NOT CONTAINED IN ANY DESIGNATED FLOOD HAZARD AREA.

THE RESULTS OF THE SURVEY OF THIS URBAN PROPERTY, MADE FOR UNION ELECTRIC COMPANY AT THE REQUEST OF CMA AND ENVIRONMENTAL CONSULTANTS, INC., AND EXECUTED IN ACCORDANCE WITH THE CURRENT MISSOURI MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS, ARE SHOWN ON THIS PLAT.

MARSHALL ENGINEERING AND SURVEYING, INC.
BY: Ronald G. Lucek
RONALD G. LUCEK
PROFESSIONAL LAND SURVEYOR
LS #1907

May 30, 2007

SUBSCRIBED AND SWORN TO BEFORE ME, A NOTARY PUBLIC IN AND FOR BOONE COUNTY, MISSOURI, THIS 30th DAY OF MAY 2007.

MY COMMISSION EXPIRES NOVEMBER 23, 2010.

MARK SKINNER
NOTARY PUBLIC

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EXHIBIT B

Site Management Plan

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Site Management Plan

Ameren Services
Former Manufactured Gas Plant
210 Orr Street
Columbia, MO

July 20, 2018

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1. Introduction

This Site Management Plan (SMP) has been prepared to guide management of environmental conditions at the site including:

- Pre-approval and/or documentation requirements for excavation and construction projects;
- Proper handling of soil that is potentially impacted by the presence of residual manufactured gas plant (MGP) impacts; and
- Self-inspection and reporting obligations.

The Ameren Services (Ameren) former MGP at 210 Orr Street in the City of Columbia, Missouri (Site) (see Figure 1).

The legal description for the 2.14 acre Ameren (Gas Company) property is presented below including the street easements:

> A tract of land in the west half of the northwest quarter of the southwest quarter of section 7, T48N, R12W, Boone County, Missouri, being the composite tract described by deeds recorded in book 174, page 14; in book 182, page 151; in book 187, page 266; in book 363, pages 272, 273 and 274, all being contained in the 1.01 acre tract shown and described by a survey recorded in book 432, page 701, including lot 2, Judge and Sims subdivision, Columbia, Missouri;
>
> Also being the composite tract described by deeds recorded in book 407, page 891; in book 680, page 165 and corrected in book 700, page 590; in book 684, page 771; and in book 907, page 36, all being Boone County survey #5274 and that tract lying between said county survey and said 1.01 acre survey as described by said deed recorded in book 407, page 891; and lots 1, 3, 4 and the unnamed lot lying east of and abutting said lot 4 of Judge and Sims subdivision as shown in plat book 3, page19, all of the Boone County records.
>
> This 2.14 acre composite tract is subject to street easements recorded in book 764, page 412, in book 821, page 212 and in book 1058, page 312. This 2.14 acre tract is also subject to a storm sewer easement, "blanket-type" and undefined width recorded in book 202, page 154 and to various sanitary sewer easements of record. This tract may be subject to other easements and restrictions of record provided by a recent title search. This 2.14 acre tract has additional underground utilities and facilities that are not shown.

2. Property Description and Remedial Action Summary

The Missouri Department of Natural Resources (MDNR) accepted this site into the Voluntary Cleanup Program (VCP) on November 3, 2006. The following reports relate to the investigation and remediation activities at this site:

- Remedial Investigation Report, Columbia MGP Site, Atlantic Environmental Services, Inc., March, 1992.

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- Removal Action Closure Report, Columbia MGP Site, Atlantic Environmental Services, Inc., July, 1996.
- Supplemental Remedial Site Characterization Report, Columbia MGP Site, Civil & Environmental Consultants, Inc., August, 2007.
- Tier I Risk Assessment, Columbia MGP Site, Civil & Environmental Consultants, Inc., February, 2008.
- Ambient Air Monitoring Plan, Columbia MGP Site Remedial Action, Burns & McDonnell, November, 2013.
- Update No. 1 Report for the Supplemental Site Characterization Report, Tier 1 Risk Assessment, Columbia, Missouri FMGP Site, PSC Industrial Outsourcing, L.P., December 2013
- December 2013 Risk Management Plan for the Columbia Former Manufactured Gas Plant Site, Columbia, Missouri, PSC Industrial Outsourcing, L.P., December 2013.
- Final Risk Management Plan Completion Report, PSC Industrial Outsourcing, L.P., January 2015.

Site investigations found conditions typical of FMGP sites, including soil contaminated with coal tar and coal tar constituents, and tar-saturated conditions in some areas. Coal tar typically contains a wide range of hydrocarbons, including volatile organic compounds (VOCs) such as benzene and polycyclic aromatic hydrocarbons (PAH) such as naphthalene and benzo(a) pyrene. These and other chemicals of concern (COCs) were considered individually for cleanup based on their toxicity. All other hydrocarbons in the complex tar mixture were evaluated using standards for Gasoline Range Organics (GRO), Diesel Range Organics (DRO) or Oil Range Organics (ORO).

Remedial actions were performed at the Site between December 2013 and September 2014 and were completed under the oversight of the Missouri Department of Natural Resources (MDNR) Brownfields/Voluntary Cleanup Program (BVCP). Remedial activities occurred in and around a former underground gas holder (GH-2) on the property, which was the likely source of soil impacts on the Site. Impacted soil was excavated and transported to an approved landfill for disposal. A total of approximately 31,612 tons of soil was removed from the Site. The depth of the excavation varied across the Site depending upon the site conditions and the presence of soil impact. Soil was excavated until no visual impact was observed or to the maximum extent achievable while maintaining safe working conditions. The excavation depths ranged from approximately 14 to 21 feet below grade. The extent of the excavation is shown in Figure 2. Confirmation soil samples were collected from the sidewalls and the floor of the excavation. Groundwater was not encountered during the remedial actions. As portions of the remedial action were completed, the excavations were backfilled with MoDOT Type 1 classification aggregate from an offsite quarry. The excavation limits and estimated extent of impact are documented in the January 2015, *Final RMP Completion Report*. Complete files on the investigation and remediation of the site are maintained in the offices of MDNR Hazardous Waste Program.

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The site met standards for non-residential use according to the Missouri Risk-Based Corrective Action Guidance (MRBCA, 2006). An Environmental Covenant detailing activity and use limitations for the property was placed in the property's chain of title. Additional details on residual contaminant levels remaining at the site, property use limitations, and future management of excavated soil are provided in this plan. The Covenant requires this plan to be followed when performing excavation at the site.

3. Property Use Limitations

The following restrictions have been placed on the use of the property by means of an Environmental Covenant filed in the property chain of title. The Covenant runs with the land in perpetuity unless changes are approved by the owner and MDNR or a court of competent jurisdiction.

1. Non-Residential Land Use Restriction - The Site is currently zoned as industrial/commercial property, and was remediated to meet MRBCA Non-residential risk-based target levels (RBTLs). Residential use of the property is prohibited along with certain non-residential but higher-risk uses such as schools and child care facilities.
2. Soil Disturbance Restrictions – The Covenant requires excavation and soil disturbance on the property to be performed in accordance with this Plan. The Covenant does not prohibit excavation or disturbance. Soil and backfill in most areas of the site may be excavated with no special considerations. The majority of routine activities pose no particular risk. Some soils may not be considered Clean Fill for reuse offsite, although they pose no risk to construction workers or non-residential occupants. In certain areas and depths as specified in this Plan, higher levels of contamination remain and additional requirements apply.
3. Construction Worker Notification - Soil confirmation samples collected from specific locations along the northern, western, and northeastern excavation walls contained concentrations of COCs that exceeded the project Tier 1 target levels for soil ingestion and inhalation for construction workers. Therefore, construction worker notifications are required to protect workers that may potentially come into contact with impacted soil during excavation in those areas.
4. Construction of Enclosed Buildings – Residual concentrations of volatile organic contaminants such as benzene exceed MRBCA RBTLs for subsurface soil for both residential and non-residential use in certain areas at depths of 10-18 ft. below grade. These RBTLs are based on vapor intrusion into enclosed buildings. It is likely that only buildings with basements would be at risk due to the depth of contamination. The existing warehouse building in the center of the site was determined not to be at risk based on the limited horizontal extent of contamination along the south wall of the building, and the depth of the remaining contamination in relation to the slab-on-grade foundation. The construction of future buildings, particularly those with basements, over areas with residual

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volatile contaminants, requires evaluation of vapor intrusion risks based on the proposed building design.

5. Drilling and Use of Groundwater Prohibited – Low levels of contaminants remain in shallow groundwater (to a depth of approx. 20 ft./top of bedrock) beneath the property and adjacent property to the west across Orr St. (where the FMGP production area was located). This shallow groundwater in this area is not considered a viable water source for consumption, so remediation to drinking water standards was not required. As an additional safety measure, and to prevent uncontrolled drilling (such as installation of deeper wells, heat pump wells, etc.), the Covenant prohibits drilling and use of groundwater beneath the property except for purposes of sampling and monitoring.

The Covenant requires the Owner to make periodic reports to MDNR confirming that these restrictions remain in place, and to report more intrusive levels of excavation activities performed pursuant to this Plan. As provided in the Covenant, upon reasonable notice, the Owner shall provide access to the premises to MDNR to verify that the provisions of the Covenant are upheld.

4. Soil Impact Remaining

Table A below lists constituents of concern typically encountered at MGP sites and that were addressed during the remediation of the site. Current guidance applicable at the time of this filing is the *Departmental Missouri Risk-Based Corrective Action (MRBCA) Technical Guidance (2006)* which can be found here *http://dnr.mo.gov/env/hwp/mrbca/mrbca.htm*.

TABLE A: Constituents of Concern (COC) for Site Soils

Arsenic	Benzo(b)fluoranthene (PAH)
Benzene	Benzo(k)fluoranthene (PAH)
Gasoline Range Organics (GRO)	Chrysene (PAH)
Diesel Range Organics (DRO)	Dibenzo(a,h)anthracene (PAH)
Oil Range Organics (ORO)	Indeno(1,2,3-cd)pyrene (PAH)
Anthracene (PAH)	Naphthalene (PAH)
Benzo(a)anthracene (PAH)	Pyrene (PAH)
Benzo(a)pyrene (PAH)	

The following table (Table B) summarizes the results of confirmation sampling of the site following excavation with respect to the MRBCA Tier 1 Risk-Based Target Levels (RBTLs) for residential and non-residential use of the property and for construction worker exposure to the COCs.

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Note that the RBTLs are periodically updated and that Table B indicates conditions based on MRBCA 2006 RBTLs. Evaluation of disturbance and construction projects should be done on the basis of comparable standards in place at the time of the project.

The **surface soil** exposure pathway is related to direct exposure (inhalation/dermal contact/passive ingestion) for soil from zero to three feet. The **subsurface soil** exposure pathway is through vapor intrusion into buildings from subsurface soil (evaluated for 3-10 ft. below grade for purposes of this table). The **construction worker** exposure pathway is related to direct contact by a construction worker to soils in the zero to 10 ft. interval.

TABLE B: Summary of Residual Soil Impacts for Various Land Use Scenarios

	Residential Surface Soil, Direct Contact	**Residential** Subsurface Soil, Vapor Intrusion	**Non-Residential** Surface Soil, Direct Contact	**Non-Residential** Subsurface Soil, Vapor Intrusion	**Construction Worker** Direct Contact
Sitewide Average Concentrations	Exceeds Limits	Exceeds Limits	Meets Limits	Meets Limits	Meets Limits
Individual Samples Results	Exceeds Limits	Exceeds Limits	Meets Limits	Exceeds Limits in Discrete Locations	Exceeds Limits in discrete locations

Two modes of residual soil impact exist at the site: 1) widespread, low level impact exceeding residential target levels, and 2) discrete areas of higher levels of contamination, up to and including tar-saturated soil.

Figure 2 shows the excavation limits and areas of soil outside the excavation (remaining in place) adjacent to individual wall samples that exceeded RBTLs. Soil in these areas at the depths indicated may exceed RBTLs for some distance from the excavation limits, based on data from the wall samples and from borings outside the excavation.

While the site-wide averages were below limits for non-residential use of the site, soils in some areas and depths exceeded these standards. These are described below.

1. Surface Soil (0-3 ft. and 3-10 ft.) – As shown in Figures 3A, samples collected from the walls of the excavation in several areas of the site had contaminants exceeding non-residential surface soil target levels based on direct exposure. Contaminants were limited to arsenic (20 to 49 mg/kg), typically associated with coal cinders, and PAHs (up to 130 mg/kg total PAH), typically associated with both coal tar and asphalt pavement. The site's cleanup standards allowed averaging across the site to meet the target levels, but individual samples did exceed the target levels. If surface grading or construction is performed in these areas, covering this surface fill with clean fill or pavement, or removing and disposing, is preferred.

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2. Shallow Subsurface Soil (3-10 ft.) - Figure 3B shows excavation wall samples exceeding subsurface RBTLs based on vapor intrusion. Note that these soils may also exceed surface soil target levels based on direct exposure, in the event the soil is later exposed or excavated and placed on the surface. The site's cleanup standards allowed averaging across the site to meet the target levels, but the individual samples shown did exceed the target levels.

3. Soil at depths of 10-20 ft. below grade (Figure 4A) - The stratigraphy of the site included a dense clay above the bedrock at a depth of about 18 ft ('underclay'). Coal tar constituents did not penetrate the underclay significantly, and it was used as a visual indicator of a 'clean' floor in the excavation. If excavation is performed inside the backfilled former excavation, the underclay will generally be the first native soil encountered beneath the clean backfill. A coal seam approx. 1 foot thick lay just above the underclay. The coal is sufficiently porous that free phase coal tar migrated into it. Confirmation samples of the excavation wall at or just above the coal contained higher levels of contamination or free phase coal tar in some locations. These residual contaminants were left in place due to one or more of the following factors:

   - Further excavation horizontally would require removal of a large volume (up to 18 ft. vertically) of relatively clean overburden to access the contaminated layer.
   - The horizontal extent of the residual contamination beyond the excavations was believed to be limited based on soil borings and the stratigraphy of the coal and the underclay.

4. Figures 4B and 4C detail the wall sample locations and remaining impacts along the south wall of the large warehouse in the center of the site and along the Orr St. curb line. These two areas contained higher concentrations of wall samples exceeding the target levels in the 3-20 ft. depth zones.

The presence of utility lines (gas, water, and sewer) prohibited further excavation of impacted material in certain areas. Remaining underground utilities are shown in Figure 5.

Contact with tar-contaminated or tar-saturated soil and vapors could occur during deep excavation. In these situations, the Owner shall require the use of appropriate personal protective equipment (PPE) and adherence to a health and safety plan for construction workers. Protective levels for workers during construction-related activities are provided in applicable state standards as may be amended from time to time. These should be consulted during the planning of construction projects.

5. Excavation and Material Management Procedures

This section describes how to determine whether construction activity will require a plan or special procedures, when the plan requires pre-approval by MDNR, and options for managing excavated soils.

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Affected activities may include site grading, construction of building foundations, construction and maintenance of site utilities, and construction of parking and driveway areas.

Excavation is not prohibited on the site under the terms of the Environmental Covenant, but it must be performed in accordance with this plan.

The remedial excavation at the site was backfilled with clean quarry rock. No special requirements for excavation or reuse apply to this material.

Soil impacted with low levels of contaminants, not exceeding MRBCA non-residential RBTLs (or equivalent standards in place at the time of any future project), may generally be disturbed and replaced onsite. This covers most soil at the site. However, soil with detectable concentrations of contaminants may not qualify as Clean Fill under Missouri regulations and may not be suitable for reuse as fill off the property.

Soil with higher levels of contaminants, generally found at depths below 10 ft., or tar-saturated soil found in any other location, should be disposed of as a waste if excavated and not returned to the site.

These management options are summarized below. Refer to Figures 3A-B and 4A for known areas of residual contamination in the 0-3, 3-10 and 10+ ft. depth intervals.

Material Management Options

1. **Clean Fill and Unimpacted Native Soil**
    a. Quarry rock backfill or native soils in remote locations from remediation area
    b. No apparent discoloration/odors
    c. Options:
        i. Reuse onsite or offsite with no limitations
    d. MO Clean Fill requirements apply to any soil to be reused offsite.

2. **Low Level Impacted Soil**
    a. Discolored and/or light to moderate odors, cinders
    b. NO visible tar droplets
    c. Meets MRBCA Non-Residential RBTLs
    d. Options:
        i. Replace at same depth range, OR
        ii. Profile and dispose as Special Waste in sanitary landfill, OR
        iii. Stockpile, sample and evaluate for offsite reuse.
    e. MO Clean Fill requirements apply to any soil to be reused offsite.
    f. Refer to Table C for plan/approval/recordkeeping requirements

3. **Hot Spot Areas – High Level Impacted Soil**
    a. Strong odors and/or visible tar, OR
    b. Exceeds MRBCA Non-Residential RBTLs
    c. Options:
        i. Profile and dispose as Special Waste.
    d. Refer to Table C for plan/approval/recordkeeping requirements

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Project Plans, Approval and Recordkeeping

Refer to Table C below. Minor construction projects require a lower level of recordkeeping and MDNR approval. Most disturbance and excavation activities do not require pre-approval of excavation plans by MDNR. Excavation in the hotspot areas requires pre-approval of an excavation and material management plan. Contractors responsible for excavations requiring a plan will prepare a site-specific and project-specific plan specifying the excavating, stockpiling, testing, handling and disposal procedures for excavated soils. As outlined in Table C, Owner's bid specifications pertaining to work involving impacted soil on site will be submitted to MDNR for review for projects with a high level of disturbance of the engineered barriers or impacted soil.

Protection of human health and the environment is the primary concern in addressing activities during construction at the site. Construction work at the site can most likely be accomplished in personal protective equipment (PPE) typically worn for non-hazardous waste construction activities. It is the responsibility of each construction contractor to review the available information to determine the health and safety requirements for their workers.

6.0 Soil Sampling and Analysis

The sample collection procedures for sampling stockpiled soils will consist of composite sampling procedures in accordance with MDNR generally accepted practices.

- A minimum of one composite sample comprising a minimum of five subsamples will be collected per 100 cubic yards (or portion thereof) of excavated material using clean, decontaminated sampling tools. The composite samples will be analyzed for selected PAHs, DRO and ORO by EPA SW-846 Method SW8270 SIM or equivalent
- Grab samples (for volatile organic carbon analyses) will be collected from the most visually impacted or odiferous area of the stockpiled soils and will be analyzed for benzene and GRO by EPA SW-846 Method 8260B or equivalent

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TABLE C
Record-Keeping and Approval for
Post-Closure Disturbance

Applies to Impacted Areas Exceeding MRBCA Risk Based Target Levels

Type of Construction or Excavation	Examples	Project Plan Requirements	MDNR Approval Of Plan	Owner Documentation
Shallow or Minor, Site-wide	Fence Posts Sign Posts Landscaping	None	N/A	Log Include in annual inspection report to MDNR
Intermediate, Site-wide	Underground Utility Lines & Utility Pole Installation, Removal, Replacement Parking Surface (Cap) Maintenance	Project Plan for excavation, stockpiling, testing, handling, disposal	Not required	Log Include in annual inspection report to MDNR
Deep or Major Construction at Hot Spots (Fig.1)	Building Demolition New Construction: Foundations, Basements Disturbance of eng. Controls – creek bank, asphalt cap or subsurface barriers	Project Plan for excavation, stockpiling, testing, handling, disposal	Plan review and approval required	Include in annual inspection report to MDNR Submit project report to MDNR

7.0 Vapor Intrusion Assessment

As noted in Section 3, the construction of future buildings, particularly those with basements, over areas with residual volatile contaminants, requires evaluation of vapor intrusion risks based on the proposed building design. This requirement recognizes several factors

- Vapor intrusion risk for any building must be evaluated based on the location and design of the building, so future buildings cannot be assessed at this time.
- It is likely that residual contaminants at the site, particularly soil vapor, have been significantly disturbed by the excavation and will redistribute themselves over time.
- Volatile hydrocarbons such as benzene may naturally degrade in the subsurface.

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- Industry standards and regulatory requirements for vapor intrusion assessment are changing rapidly and are likely to be different at the time of any proposed future construction.

For these reasons, additional sampling, evaluation and risk assessment using standards in place at the time of any proposed future construction will be the best way to evaluate any potential vapor intrusion risk. Therefore, construction of any new enclosed building or modifications to existing buildings in the controlled areas is allowed only with prior written approval from the Department after further evaluation.

The approval process may require, but not necessarily be limited to, the following activities:

- Sampling to evaluate current site conditions in the area of proposed construction;
- Risk assessment based on the proposed building design, location, and use; COC concentrations; and standards in place at the time of the evaluation; and
- Approval of a remediation plan and/or mitigation system design, if required based on the aforementioned evaluation.

The Owner is responsible for conducting the assessment to support a request for construction approval. Based on the potential hazards associated with the proposed construction, the Department may approve or deny the construction, or may require protective or remedial actions before allowing construction to occur. The assessment should be based on standards in effect at the time of the proposal, since standards for vapor intrusion assessment are expected to continue to evolve in the near future. Construction shall not be initiated prior to receipt of written approval from the Department. Consultation with the Department early in the assessment process is strongly encouraged. The Covenant provides for reimbursement of the Department's costs related to the review and approval process.

8.0 References

MDNR, 2006. Departmental Missouri Risk-Based Corrective Action Guidance. Missouri Department of Natural Resources, Division of Environmental Quality.

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Figure 1

Site Location Map

Figure 2

Excavation Limits and Residual Contaminated Areas - Overview

Figure 3A

Shallow Soil Impacts (0-3 ft.)

Excavation Wall Samples Exceeding MRBCA Tier 1 RBTLs

Figure 3B

Subsurface Soil Impacts (3-10 ft.)

Excavation Wall Samples Exceeding MRBCA Tier 1 RBTLs

Figure 4A

Deep Soil Impacts (10-20 ft.)

Excavation Wall Samples Exceeding MRBCA Tier 1 RBTLs

Figure 4B

Deep Soil Impacts (10-18 ft.) - Warehouse South Wall Detail

Figure 4C

Shallow and Deep Soil Impacts (3-18 ft.) - Orr St. Detail

Figure 5

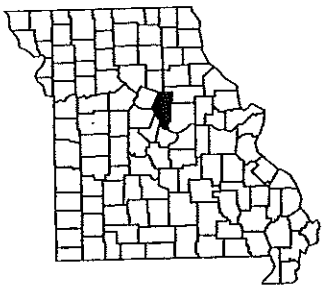
Remaining Underground Utilities, As-Built

Attachment 1

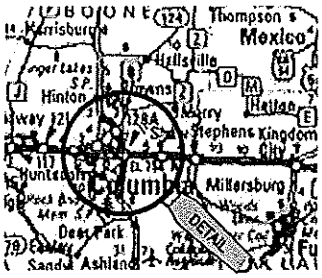
Annual Site Inspection Form

BOONE COUNTY MO SEP 07 2018

MISSOURI



BOONE COUNTY



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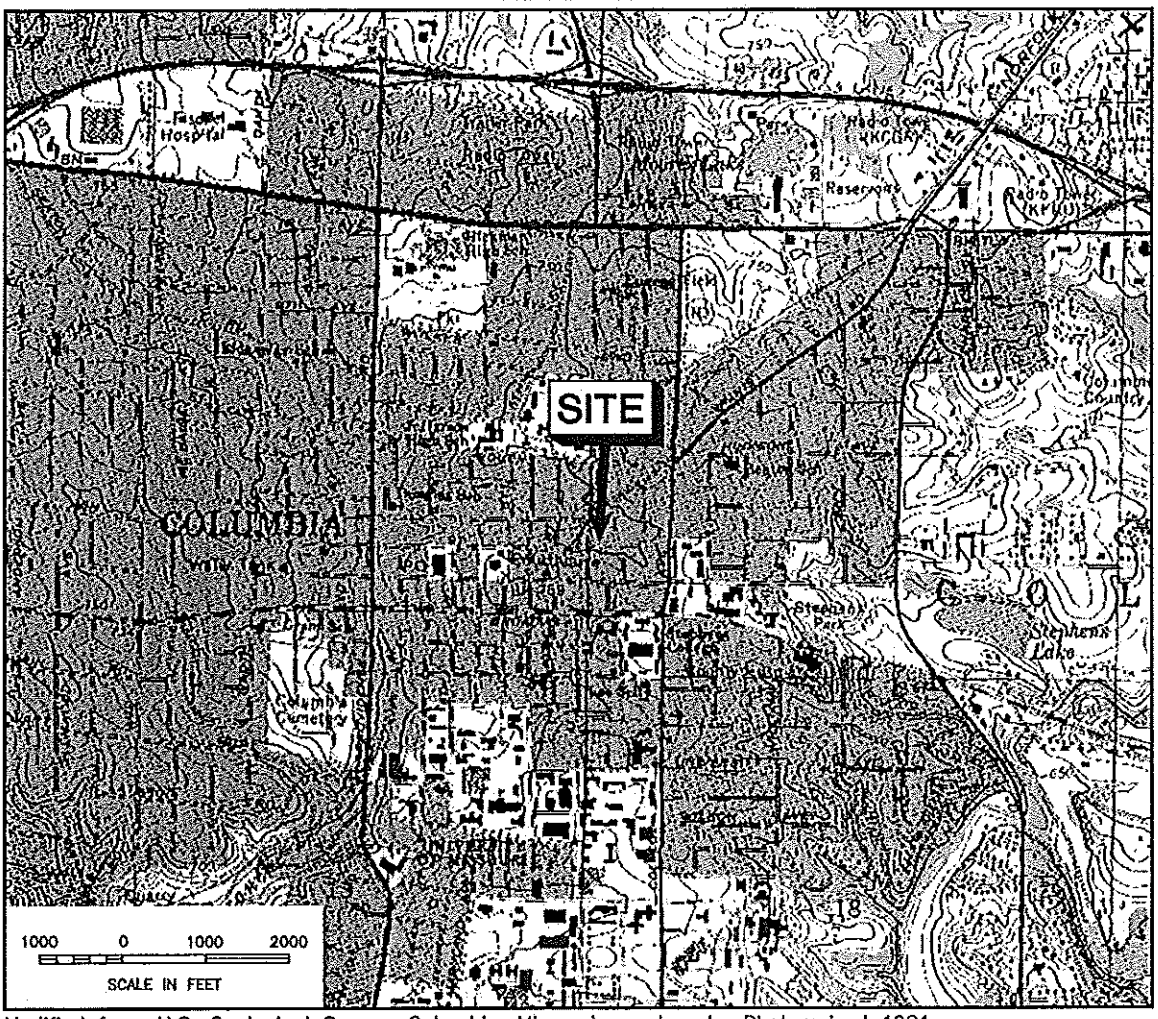
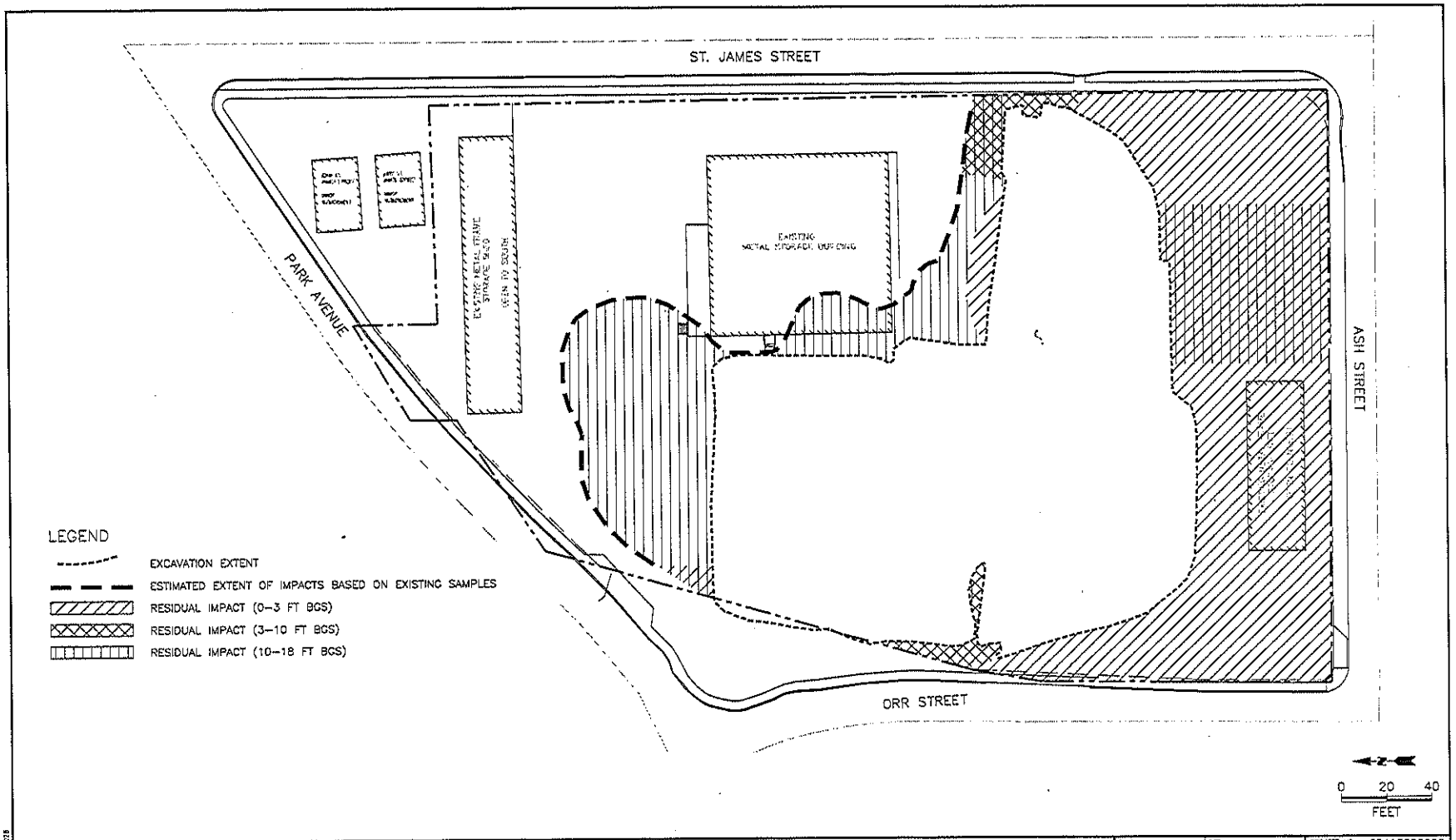


Modified from U.S. Geological Survey, Columbia, Missouri, quadrangle, Photorevised 1981.

SCALE IS VARIABLE

PSC	TITLE: SITE LOCATION MAP COLUMBIA FMGP SITE	DWN: TMM CHKD: DRP DATE: 3/21/18	DES.: MRC APPD: DRP REV.:	PROJECT NO.: 62413020002 AMEREN COLUMBIA, MO FIGURE 1

COL 62413/020002F-003



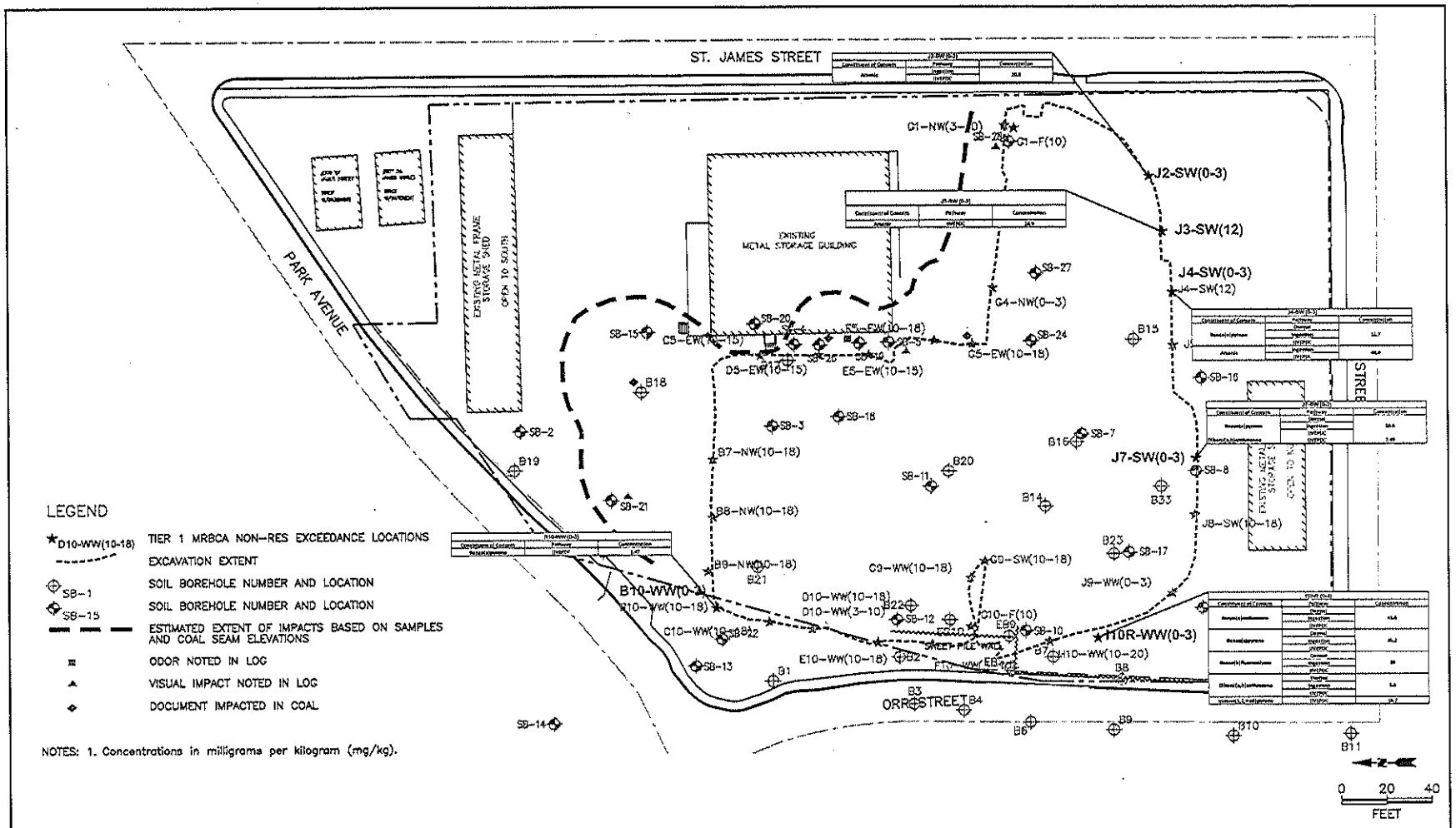
PSC

TITLE:
SOIL MANAGEMENT PLAN
ESTIMATED REMAINING IMPACTS
FORMER COLUMBIA MGP SITE

DWN: TMM	DES: PTS/BJT	PROJECT NO: 62413020002	
CHKD: BJT	APPD:	AMEREN COLUMBIA, MO	
DATE: 4/21/16	REV:	FIGURE 2	

62413/020003-035

BOONE COUNTY MO SEP 07 2018

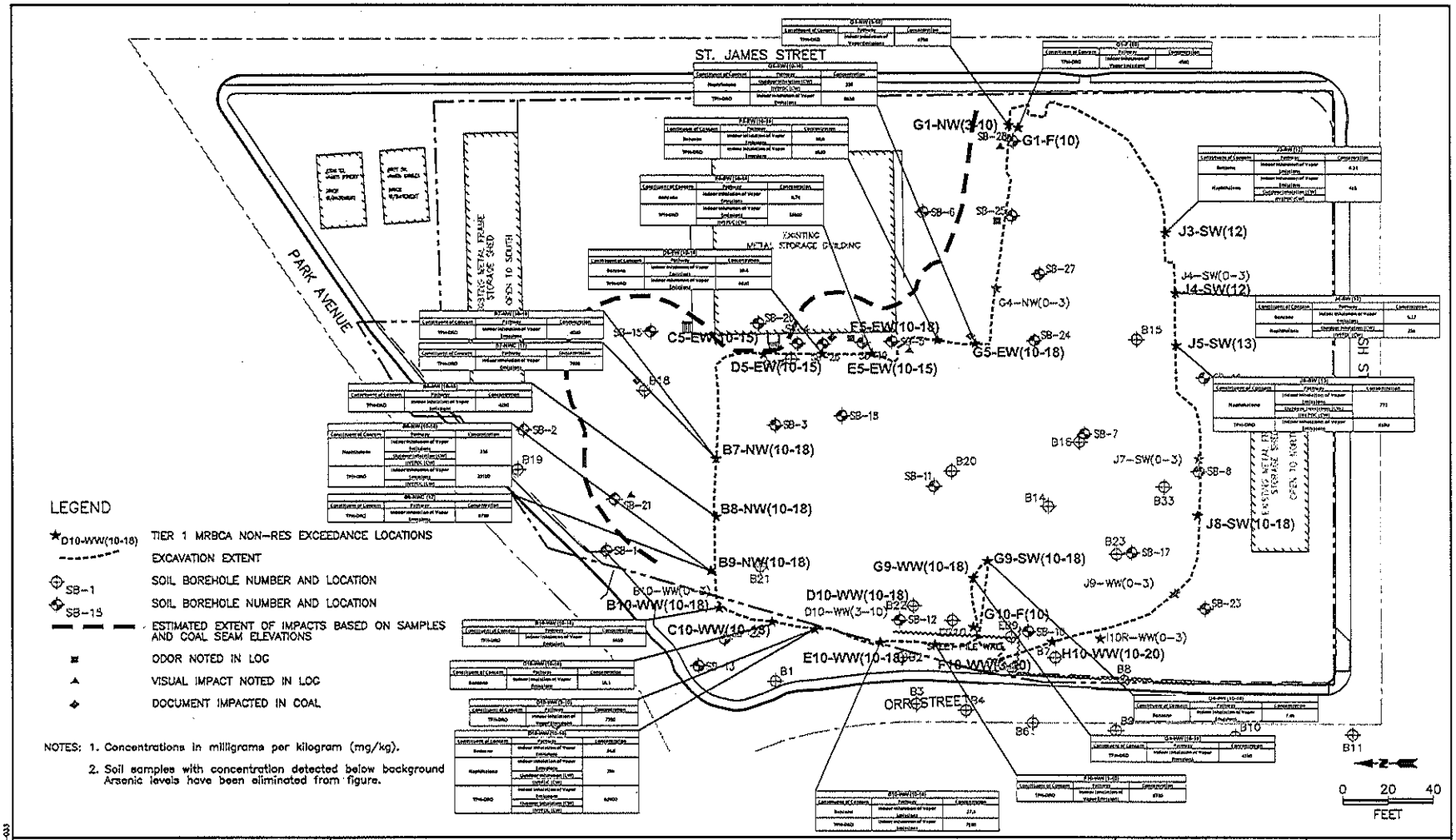


PSC

TITLE: SHALLOW SOIL IMPACTS – SITE WIDE EXCAVATION WALL SAMPLES EXCEEDING MRBCA TIER 1 RBTLs
0 TO 3 FEET
FORMER COLUMBIA MGP SITE

DWN: TMM	DES: BJT	PROJECT NO: 62413020002	AMEREN COLUMBIA, MO
CHK'D: BJT	APP'D:		
DATE: 3/7/18	REV:	FIGURE 3A	

BOONE COUNTY MO SEP 07 2018



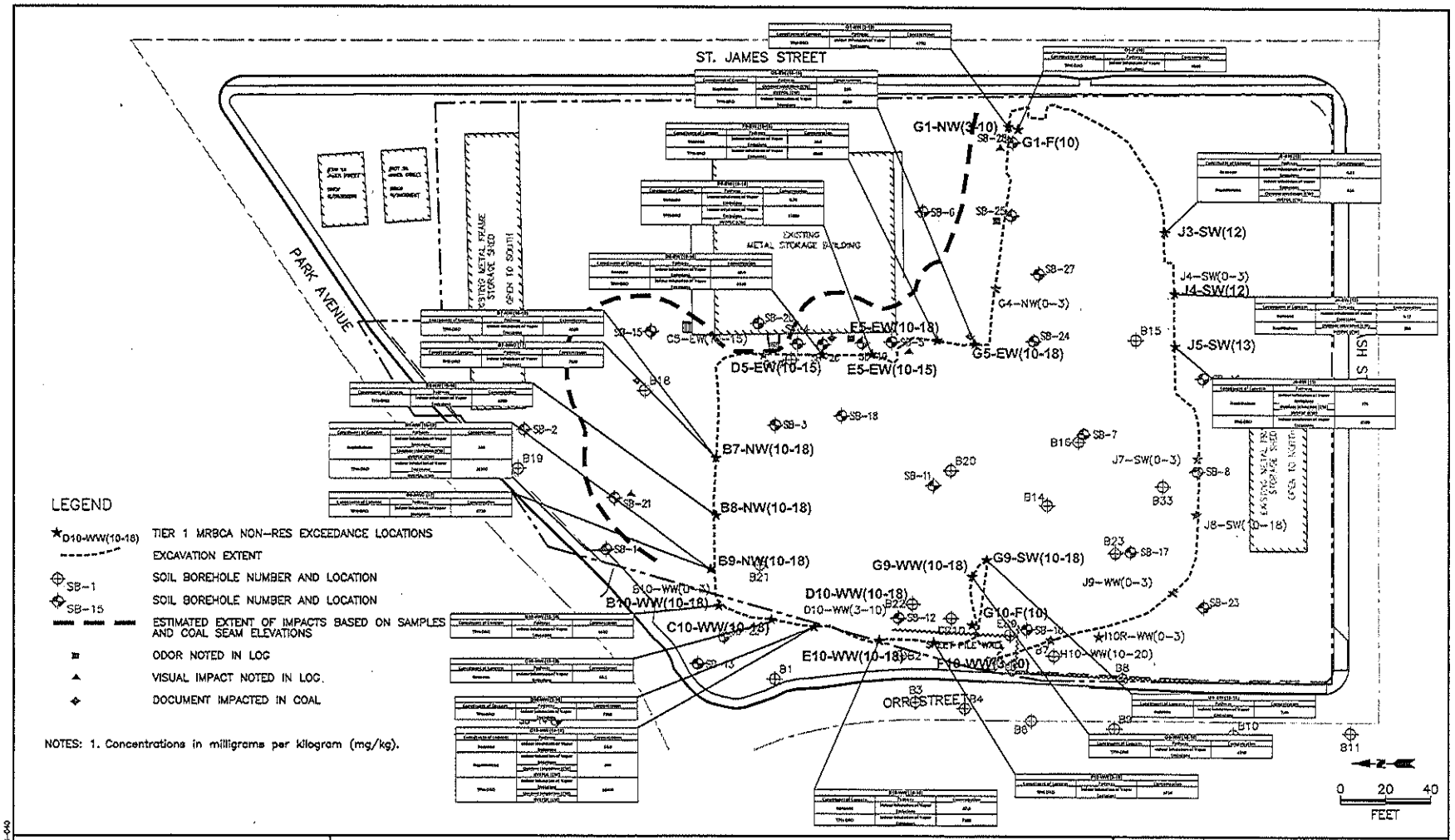
PSC

TITLE: SUBSURFACE SOIL IMPACTS – SITE WIDE EXCAVATION WALL SAMPLES EXCEEDING MRBCA TIER 1 RBTLs
3 TO 10 FEET
FORMER COLUMBIA MGP SITE

DWN: TMM	DES: PTS/BJT	PROJECT NO: 62413020002	
CHKD: BJT	APPD:	AMEREN COLUMBIA, MO	
DATE: 10/6/16	REV:	FIGURE 3B	

62413/020002-003

BOONE COUNTY MO SEP 07 2018

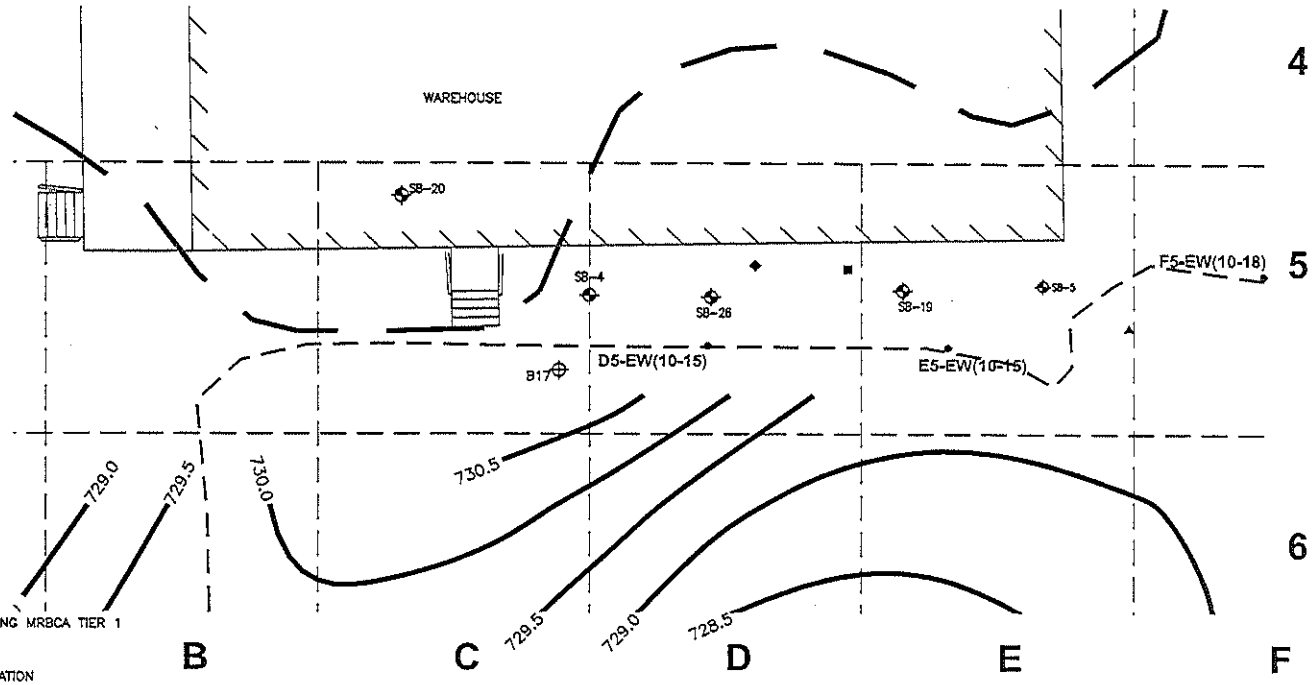


PSC

TITLE: DEEP SOIL IMPACTS – SITE WIDE EXCAVATION WALL SAMPLES EXCEEDING MRBCA TIER 1 RBTLs
10 TO 18 FEET
FORMER COLUMBIA MGP SITE

DWN: TMM	DES: BJT	PROJECT NO: 62413020002 AMEREN COLUMBIA, MO	
CHKD: BJT	APPD:		
DATE: 3/7/18	REV:	FIGURE 4A	

BOONE COUNTY MO SEP 07 2018



LEGEND

- D10-WW(10-18) — EXCAVATION WALL SAMPLE EXCEEDING MRBCA TIER 1
- EXCAVATION EXTENT
- SB-1 — SOIL BOREHOLE NUMBER AND LOCATION
- SB-15 — SOIL BOREHOLE NUMBER AND LOCATION
- ESTIMATED EXTENT OF IMPACTS BASED ON EXISTING SAMPLES
- ODOR NOTED IN LOG
- VISUAL IMPACT NOTED IN LOG
- DOCUMENT IMPACTED IN COAL

N

0 10
FEET

PSC

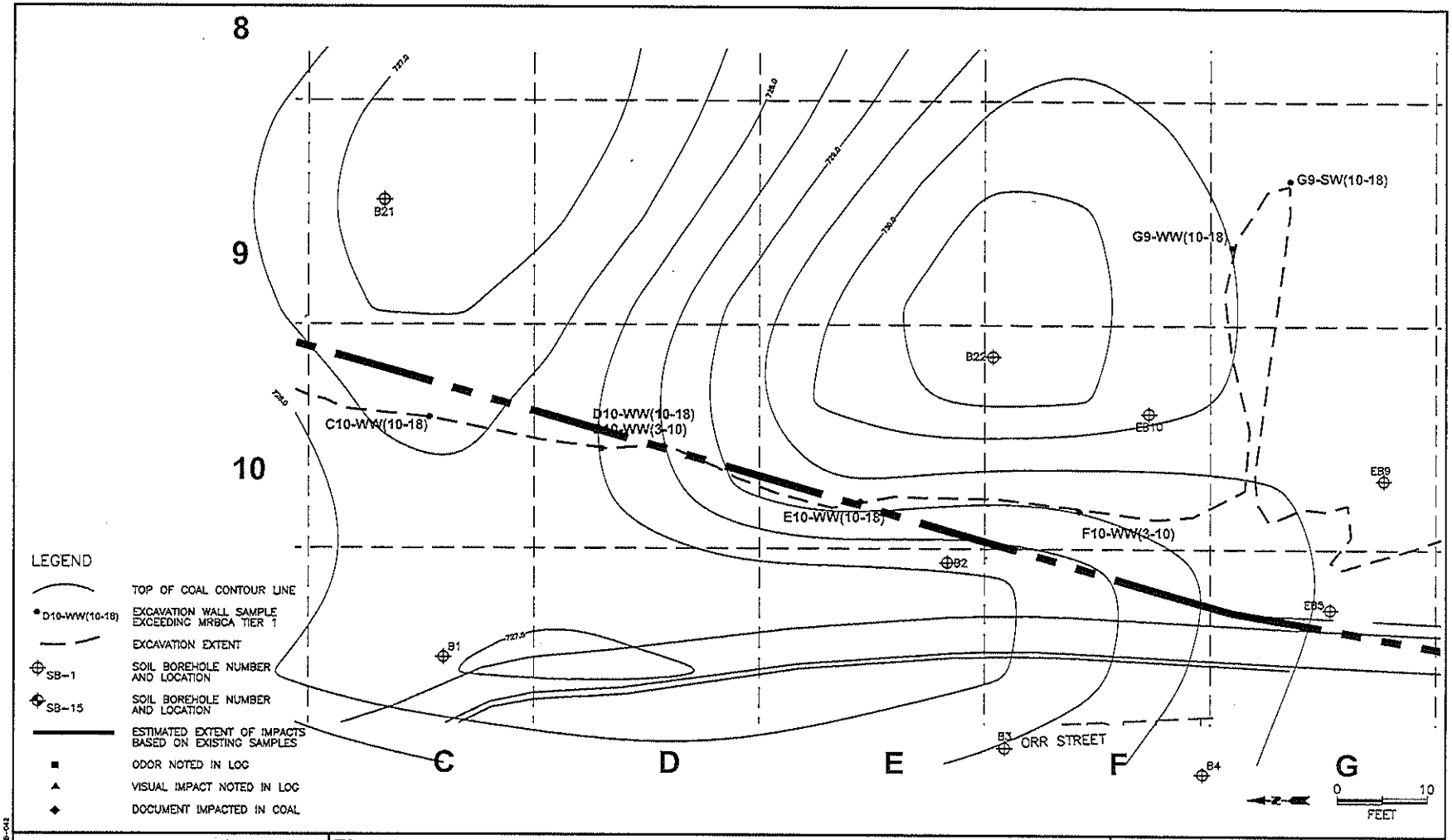
TITLE: DEEP SOIL IMPACTS – WAREHOUSE SOUTH WALL DETAIL – CLOSEUP ON WAREHOUSE
10 TO 18 FEET
FORMER COLUMBIA MGP SITE

DWN: TMM	DES: BJT
CHKD: BJT	APPD:
DATE: 3/7/18	REV:

PROJECT NO: 62413020002
AMEREN
COLUMBIA, MO

FIGURE 4B

BOONE COUNTY MO SEP 07 2018



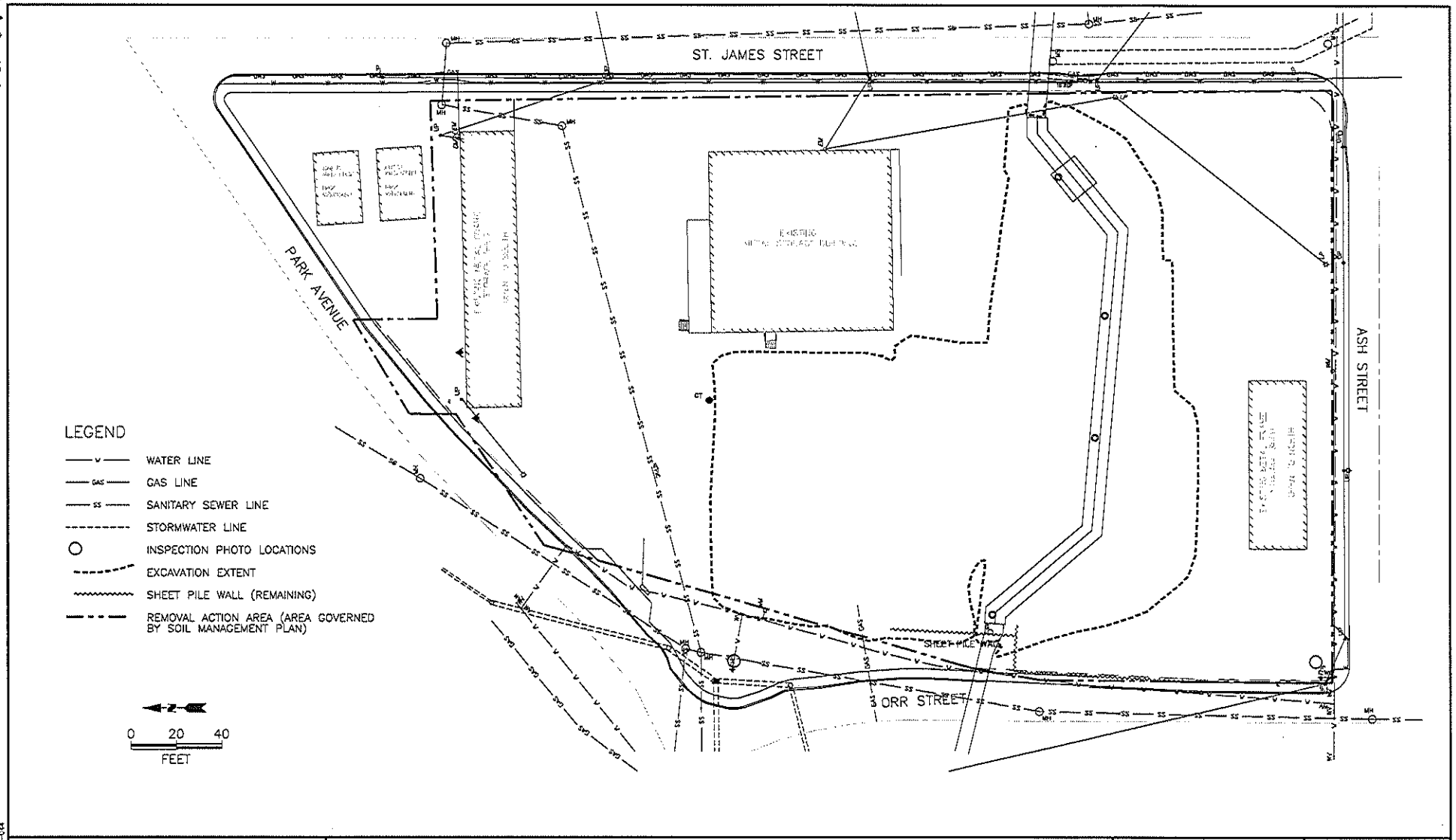
PSC

TITLE:
SHALLOW AND DEEP SOIL IMPACTS – CLOSEUP ON ORR STREET DETAIL
3 TO 18 FEET
FORMER COLUMBIA MGP SITE

DWN: TMM	DES: BJT	PROJECT NO: 82413020002 AMEREN COLUMBIA, MO
CHKD: BJT	APPD:	
DATE: 3/7/18	REV:	FIGURE 4C

BOONE COUNTY MO SEP 07 2018

BOONE COUNTY MO SEP 07 2018



PSC

TITLE:
REMAINING UNDERGROUND UTILITIES – AS-BUILT

FORMER COLUMBIA MGP SITE

DWN: TMM	DES: BJT
CHKD: BJT	APPD:
DATE: 3/7/18	REV:

PROJECT NO: 62413020002
AMEREN
COLUMBIA, MO

FIGURE 5

62413/020002-014

BOONE COUNTY MO SEP 07 2018

Columbia Former Manufactured Gas Plant
210 Orr St., Columbia, Missouri
Annual Site Inspection

Date: _____ Inspector(s): _____

Reporting Period
(MM/YY to MM/YR): _____ _____

Instructions

This self-inspection form should be completed annually by the property owner or qualified representative for the former manufactured gas plant site at 210 Orr Street, Columbia, MO to meet requirements set forth in the Environmental Covenant for the property. Refer to the Site Management Plan (SMP) attached to the Covenant for additional information. Attach additional sheets as necessary. Attach photos as described below. Retain a copy for records and send a copy to:

Attn: Project Manager, Columbia FMGP Site
Hazardous Waste Program, LTS Unit
Missouri DNR
P.O. Box 176
Jefferson City MO 65101

Questionnaire

1. Property Use: Any changes in use of the property during the reporting period?

2. Drilling and Use of Groundwater: Any drilling of wells for water monitoring or production, heat pumps, etc. during the reporting period?

3. Excavation and Soil Disturbance
   a. Describe any earth-moving activities.

   b. For each project, was any soil not returned to excavations? Describe disposition of soil.

   c. If any soil was landfill disposed, include disposal documentation.

   d. Attach any data, logs or reports generated for these projects, as specified in the SMP.

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4. Construction
   a. Were any new buildings or other infrastructure constructed?

   b. If enclosed buildings constructed, are they located on or near any of the controlled areas shown in the SMP?

   c. If yes, describe any investigation/risk assessment performed and/or approvals obtained from MoDNR if required by the SMP.

Describe any other problems or issues during the reporting period.

Problem Noted: _____

_____

Corrective Action(s) Recommended: _____

_____

_____

_____

By: Date:

Recommended Corrective Action(s) Approved?

☐ No ☐ Yes ☐ Partially

If partially, describe: _____

_____

_____

_____

Approved or Disapprove By: Date:

Corrective Action(s) Completed: _____

_____

_____

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Date:

BOONE COUNTY MO SEP 07 2018

Annual Photo Log for
Columbia Former Manufactured Gas Plant Site Survey

The following photos (numbers in parentheses) may be taken annually to document the conditions and activities at the site. Photos shall overlap to give full coverage of the Site.

1. **Standing at corner of Orr Street and East Ash Street (SW Corner of Site)**
   - View 1 to north
   - View 2 to east
   - View 3 to northwest (center of site)
2. **Standing along Orr Street just south of Park Avenue (NW Corner of Site)**
   - View 4 to east (center of site)
   - View 5 to south
3. **Standing along Park St. just east of Orr St. (NW corner of site)**
   - View 6 to southeast (center of site)
   - View 7 to east
4. **Standing at Northeast Corner of Site**
   - View 8 to west
   - View 9 to southwest (center of site)
5. **Standing at SE corner of Central Building/Center of East Fenceline**
   - View 10 to north
   - View 11 to west (center of site)
6. **Standing at Ash St. and St. James St. (SE corner of Site)**
   - View 12 to north
   - View 13 to northwest (center of site)
   - View 14 to west

7. **Additional Photos: Include photos of any construction or excavation that disturbed controlled areas during the reporting period, new uses of the property, or any other relevant activities or infrastructure. Include several angles if possible for best coverage.**

Photo ID	Description

Attachment: Figure 1, Site Map and Photo Orientation