

Remedial Action Completion Report: Off-Property Soil Replacement

Cabot/Koppers Superfund Site

Operable Unit Five (Koppers)

Gainesville, Florida

EPA ID: FLD980709356

Version 1

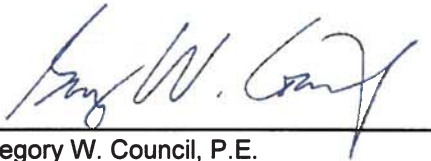
July 27, 2015

Prepared on behalf of Beazer East, Inc.



TETRA TECH

APPROVAL



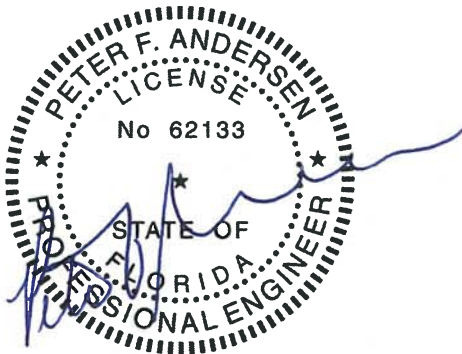
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7/24/2015

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CERTIFICATION

This report has been reviewed and approved by the undersigned Florida Registered Professional Engineer. Tetra Tech prepared this report in a manner consistent with sound engineering practices. Furthermore, either I or engineering staff working under my supervision completed all work described herein (except as otherwise noted) and I have expertise in the discipline used in the production of this document.



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REVISION HISTORY

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ACRONYMS

CCA	chromated copper arsenate
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DNAPL	dense non-aqueous phase liquid
EPA	(US) Environmental Protection Agency
HG	Hawthorn Group
OU	operable unit
PAH	polycyclic aromatic hydrocarbon
PM ₁₀	particulate matter less than 10 microns in aerodynamic diameter (i.e. respirable dust)
RA	remedial action
RD	remedial design
ROD	record of decision
SCR	Seaboard Coast Line Railroad
SCTL	soil cleanup target level
SVOC	semivolatile organic compound
UFA	Upper Floridan Aquifer
US	United States
VOC	volatile organic compound

1 INTRODUCTION

On behalf of Beazer East, Inc. (Beazer), Tetra Tech has prepared this *Remedial Action Completion Report for Off-Property Soil Replacement* at the Cabot/Koppers Superfund Site (Site) in Gainesville, Alachua County, Florida. The Site includes areas that have been environmentally impacted by activities at the former Koppers wood-treatment facility and at the former Cabot Carbon pine-tar products facility (**Figure 1**).

This document pertains specifically to residential properties in Blocks A through K of the off-Property remediation area. The final as-built drawings for these properties are included in this document. The project involved removal of existing soil from the subject properties near the former Koppers facility (**Figure 2**), replacement with clean soil, and installation of new landscaping materials to complete restoration. The work affected 100 tax parcels near the Beazer Property and also included a soil cover along the western edge of the Beazer Property.

The Site consists of five Operable Units (OUs):

- OU1: The former Cabot Carbon facility and sediment impacts in Hogtown and Springstead Creeks attributable to the Cabot Carbon facility (Beazer has no responsibilities for OU1)
- OU2: Soil and the surficial (shallow) aquifer at the former Koppers facility
- OU3: The Hawthorn Group (HG) geologic sequence which lies below the surficial aquifer
- OU4: The Upper Floridan Aquifer (UFA) which is below the HG
- OU5: Soils and sediments outside of the former Koppers facility property

This project pertains to OU5 and this report documents completion of remedial actions at properties that are part of OU5.

A Consent Decree between Beazer and the United States (US) government was entered final in the United States District Court for the Northern District of Florida on July 9, 2013. The Consent Decree requires Beazer to conduct Remedial Design (RD) and Remedial Action (RA) activities for OU2, OU3, OU4, and OU5. Beazer's responsibilities are limited to impacts attributable to the operations at the former Koppers facility. Another party, Cabot Corporation, is responsible for activities related to OU1 and impacts attributable to the former Cabot Carbon facility.

This report is a submittal to the US Environmental Protection Agency (EPA) per the requirements of the Consent Decree. This document is specific to the Beazer RD/RA Program for the Site.

1.1 Site and Property Description

This section defines and describes the Superfund "Site" as well as the Beazer "Property" that is the part of the Site that formerly contained the Koppers wood-treatment facility.

The Site means the Cabot/Koppers Superfund Site and includes the area where environmental impacts attributed to these former operations has come to be found, with the exception of the

Northeast Lagoon generally located at the intersection of N. Main Street and NE 28th Place. The Site includes the former Koppers wood-treatment facility and the former Cabot Carbon pine-tar products facility in Gainesville, Florida. These two facilities were located on the north side of Florida Route 120, also known as NW 23rd Avenue, in Gainesville, Florida (**Figure 1**). A Seaboard Coast Line Railroad (SCR) line ran in a corridor located between the two facilities, with the Koppers facility on the west side of the rail line and the Cabot Carbon facility on the east side. SCR became part of what is now CSX Transportation.

Under the Consent Decree, Beazer has RD and RA responsibilities for the former Koppers facility and impacts related to the Koppers facility. The Koppers facility was operated on an 86-acre parcel (Property) located at 200 NW 23rd Avenue and bearing Alachua County parcel tax identifier 08250-000-000. The Property is zoned for general industrial use. Beazer currently owns the Property. The Property is approximately rectangular, covering a north-south distance of 3100 feet and an average east-west distance of 1200 feet. The Property is no longer used for industrial activity.

A paved main driveway runs from the Property entrance at NW 23rd Avenue north to approximately the center of the Property. There are other unpaved roadways used to access different parts of the Property. Much of the Property is nearly flat and covered with grass.

Residential parcels of the Stephen Foster neighborhood are located west of the Property. Several residential parcels are located immediately adjacent to the Property at the western Property boundary. In some areas, a 20-foot wide City right of way containing stormwater swales separates the Property from the residential parcels.

Properties south of the Beazer Property (across NW 23rd Avenue) have different land uses including residential and commercial.

1.2 Site History

The wood-treating facility that formerly existed on the Property (the Koppers facility) began operations in 1916 and ceased wood treating operations in 2009. Beazer is the current owner of the Property.

Over the years, wood-treatment preservatives used at the Koppers facility included creosote, pentachlorophenol, and chromated copper arsenate (CCA). Creosote is a dense (heavier than water) non-aqueous liquid (DNAPL) derived from coal tar that is comprised mainly of polycyclic aromatic hydrocarbons (PAHs) with other semivolatile organic compounds (SVOCs) and volatile organic compounds (VOCs). Pentachlorophenol is an anthropogenic organic pesticide which, in commercial form, often contained impurities including polychlorinated dibenzo-*p*-dioxins and polychlorinated dibenzofurans (collectively referred to as “dioxin”). As its name implies, CCA contains chromium, copper, and arsenic compounds. Historical wood-treatment practices led to releases of wood preservatives at the Property. Primary release areas included the former Process (pressure-treatment) Area, the former Drip Track area where wood was allowed to dry immediately after treatment, and two former process-water lagoons called the South Lagoon and North Lagoon. The lagoons have been closed and filled.

The initial Record of Decision (ROD) was issued by EPA on September 27, 1990. At the Koppers portion of the Site, data from studies conducted after issuance of the 1990 ROD revealed Site conditions that were not contemplated by the 1990 ROD. Various environmental

investigation and interim measures were completed through 2011. EPA issued a final Feasibility Study report in May 2010 and in 2011 an Amended ROD was issued.

1.3 Project Objectives

The objective of this remedial action was to eliminate potential risks to receptors exposed to Site-related constituents in soil at designated off-Property parcels by replacing surface soil available for human contact with clean soil that meets all cleanup goals and other applicable criteria.

The remedial action objective (RAO) applicable for this component of the remedy is to eliminate potential risks to receptors exposed to Site-related contaminants in surface soil (from Section 8.0 of the 2011 Amended ROD).

The ROD further states that specific cleanup goals for off-Property soil are based on stringent state standards of increased cancer risk less than 1×10^{-6} and hazard index less than 1. The ROD (at Table 8) identifies residential default direct-contact soil cleanup target levels (SCTLs) as the cleanup goals for off-Property residential properties (**Table 1**). Based on the data collected to date, dioxin is the critical constituent for defining the off-Property area with concentrations exceeding one or more cleanup goals.

Table 1. ROD Cleanup Goals for Residential-Property Surface Soil

Constituent	Cleanup Goal
Arsenic	2.1 mg/kg
PAHs (total benzo-a-pyrene toxic equivalents)	0.1 mg/kg
Dioxin (TCDD-TEQ)	7 ng/kg
Pentachlorophenol	7.2 mg/kg

Note that the above cleanup goals are average concentrations over an appropriate “exposure unit” such as a residential lot. Also, the concentrations are based on conservative, default assumptions for residential exposure.

1.4 Remedy Overview for Off-Property Soil (OU5)

In accordance with the Consent Decree and ROD, soil removal and replacement was to be conducted in off-Property residential areas where cleanup goals were not currently met (OU5), subject to property owner agreement. Soil removal and replacement includes the following (further described in Section 2):

- Excavation of surface soil in areas that are not paved or under permanent structures.
 - A target excavation depth of 1 foot was conservatively selected based on the fact that off-Property samples deeper than 6 inches meet cleanup goals.
 - Fences and other non-vegetative landscaping were to be removed and either reused after soil replacement or replaced with materials of like kind or like value.
 - Existing landscaping vegetation such as turf, mulch, shrubs, and small trees were to be removed and replaced after soil replacement with new landscaping vegetation of like kind or like value.

- Large or valuable trees were (pending owner agreement) to be left in place and protected by carefully digging near the tree trunk down to the root mat.
 - The property owners were permitted to designate trees to remain and landscaping that should not be disturbed.
- Placement of the excavated soil in an on-Property soil management area, which will eventually become part of the Site soil consolidation area that will be under a low-permeability cover and within the footprint of a subsurface cutoff wall.
- Backfill of the excavation with clean soil from an off-Site borrow source.
- Replacement of landscaping with materials of like kind or like value.
 - Owners were allowed to use the same species of plants and same types of non-vegetative materials as previously present in the landscape.
 - Optionally, owners were allowed to have a new “Florida-Friendly” landscape of equivalent value installed that uses native, drought-resistant plants and that do not require excessive maintenance once established.
 - Large, healthy, trees that were removed to facilitate soil removal were replaced on a two-for-one basis with nursery trees that will grow to similar sizes, unless the property owner did not desire such replacement. (However, in many cases, large trees were protected rather than removed, thereby preserving some of the canopy in the neighborhood.) A local arborist (Kestrel Ecological Services) assisted in development of plans for tree removal and replacement.
 - A local landscape architect (Zamia Design) provided the landscape designs.
 - Approval of the design by the property owners was required prior to commencement of restoration.
- Clean soil cover (2 feet thick) and restoration for a narrow strip of land along the western edge of the Beazer Property adjacent to off-Property remediation parcels.

1.5 Soil Concentrations

Surface and subsurface soil has been sampled in several phases at both on-Property and off-Property locations. Dioxin is the constituent that most often exceeds the residential cleanup goal in off-Property samples and is the constituent that is used to define areas of remediation. **Figure 2** summarizes the results, showing where cleanup goals are met and where they are not. In many of the locations depicted on this figure, samples were taken at multiple depths. In on-Property areas, most locations have at least one sample that does not meet all cleanup goals.

All off-Property samples taken at depths greater than 6 inches met the residential cleanup goal for dioxin (locations identified in **Figure 2**), even where co-located shallow surface samples did not meet the residential cleanup goal. This reflects the understood migration pathway via particulate matter deposition which resulted in impacts that are limited to the upper few inches of soil.

The remediation parcels for soil replacement shaded in **Figure 2** were agreed upon during meetings between EPA, Beazer, and local government officials. For all properties except three, the edges of the remediation areas coincide with lot (tax-parcel) boundaries. Only the northern half of properties I07 and I08 were included in the remediation area, and only the northeastern corner of property K07 was included in the remediation area.

1.6 Pilot Project

A pilot project for soil replacement at one property (436 NW 30th Avenue) was completed in November 2013 per an approved Pilot Plan (*Pilot Plan: Off-Property Soil Replacement*, Version 1, Tetra Tech, November 6, 2013). That property is immediately west of the Beazer Property (**Figure 2**) and is referred to as property E01 of Block E. New landscaping was installed after completing the soil replacement and that landscaping was maintained for several months.

1.7 Remedial Action Work Plans

The general procedures used for the pilot project were used for remedial action at eighty-nine properties (including the pilot property) in Blocks A, B, C, D, E, F, G, H, I, J, and K where soil sampling indicated dioxin concentrations above the cleanup goal. The ninety properties comprising the remediation zone cover 100 tax parcels, where adjacent parcels with the same owner are generally grouped together (**Table 2**). There are 103 residential structures and eight commercial structures in the remediation zone. The total area of the off-Property remediation zone is 32 acres (**Figure 2**). The on-Property soil cover area is approximately 1 acre (**Figure 3**).

Details of the procedures are provided in the approved Remedial Action Work Plans (RAWPs) for off-Property soil replacement previously submitted by Tetra Tech with approved plans, as follows:

Block(s)	RAWP and Addenda Submittal Dates	EPA Approval Date
G and H	February 21, 2014	February 27, 2014
E	March 7, 2014 Addendum 1: March 24, 2014 (with F-01) Addendum 2: June 3, 2014 (with D-09)	March 7, 2014 March 28, 2014 June 4, 2014
D	April 4, 2014	April 4, 2014
C	April 30, 2014 Addendum 1: July 8, 2014 Addendum 2: September 9, 2014	April 30, 2014 July 9, 2014 September 11, 2014
B	May 21, 2014	May 22, 2014
A	June 12, 2014 Addendum 1: September 9, 2014	June 13, 2014 September 11, 2014
I	July 7, 2014	July 8, 2014
J	July 25, 2014 Addendum 1: October 1, 2014	July 31, 2014 October 2, 2014
K	August 20, 2014	August 25, 2014

The general procedures defined in the above plans were used for the remedial action at the designated properties where soil sampling had indicated dioxin concentrations above cleanup goals.

Signed access agreements were obtained from the seventy-seven different property owners for all eighty-nine properties in the remediation zone (**Figure 2, Table 2**). (Some owners own multiple properties in the remediation zone.) An initial access agreement was requested for surveying and design, and then a second access agreement was obtained for the restoration activities. Each restoration agreement included a detailed remediation and restoration plan for the subject parcel(s), including a plan for post-remediation landscaping. An example access agreement for restoration is provided in **Appendix A**. The agreements permitted Beazer and Beazer's contractors to perform the restoration work. Beazer's contractors and EPA worked with individual owners to develop plans that met remediation goals and owners' needs. In the end, each and every property owner within the remediation zone signed an agreement for implementation of remediation.

2 IMPLEMENTATION ACTIVITIES

This section describes the activities that were completed for the subject parcels in order to achieve cleanup goals. These activities are divided into: pre-removal activities, surface soil removal (upper 1 foot), management of removed soil, replacement with clean soil, landscaping, and close-out.

A conservative target soil removal depth of 1 foot was chosen for this work based on the off-Property data which indicates that concentrations exceeding remediation goals were within the upper six inches of soil (see Section 1.5).

After completion of the pilot property (E01) in November 2013, work generally proceeded from north to south, beginning at Block H and ending with the south side of Block J. In several cases, a property was skipped over as a remediation agreement or restoration design was being discussed with the owner. Work on skipped properties was done after completing the remediation agreements, when convenient for the implementation crew. The project was conducted between February 2014 and November 2014. **Section 3** provides details on the chronology of implementation activities.

The work was implemented by Severson Environmental Services with oversight by Tetra Tech. Various local subcontractors and suppliers were used in completing the work. A full list of contractors is provided in **Appendix B**.

2.1 As-Built Drawings

Final parcel as-built drawings for the remediated properties are provided in **Appendix C**. These as-built drawings are markups of the original design drawings included with the individual parcel restoration agreements and submitted with the RAWPs. Notes were added to indicate where actual implemented features deviated from the original plan. The as-built drawings also show the measured depth of excavation during soil removal.

The left side of each drawing shows pre-remediation conditions determined by a physical feature and topography survey and a landscaping assessment. The left side of the drawing shows:

- Property boundary locations including the locations of public rights-of-way.
- Locations, sizes, and types of trees and vegetation removed at the subject properties and along the edge of the Beazer property adjacent to the subject properties.
- Locations of existing trees that were kept in place.
- Tree protection zones for the trees that remained.
- Areas of 1-ft soil removal at the subject properties (areas outside structures, pavement, and protection zones).
- Areas of limited soil removal near protected trees, structures, and pavement.
- Areas of (up to) 2-ft soil removal on the Beazer property to facilitate placement of a 2-ft clean soil cover.

- Temporary benchmark elevations used in verifying removal depths and replacement elevations.
- Measured soil backfill thickness at checkpoints throughout the properties.
- Approximate locations of overhead and underground utilities.
- Locations of permanent structures and paving (e.g. roadway, sidewalk, patios) where no soil removal was conducted.
- Locations of pre-existing landscape features along with notations regarding their removal or reuse, if applicable.
- Locations of pre-existing driveways.
- Locations of fences that were removed and discarded and fences that remained in place, with appropriate notations.
- Alignment of temporary erosion-control barriers (silt fence) along the edges of work zones and alignment of temporary high-visibility construction fencing along the edges of work zones.

The right side of each drawing shows features of the implemented restoration after replacement of clean soil to pre-existing grade. This depiction includes:

- Areas and details of ground cover including turf, mulch, and ground-cover plantings.
- Locations and species of new trees (nursery stock, 15-gallon size and smaller) planted on the properties.
- Locations and species of other new vegetation such as shrubs and vines that were planted.
- Alignment of new replacement fences.
- Other installed landscaping improvements.

Red markings on the as-built drawings are used to show features that were adjusted during implementation and therefore differ from the design drawings submitted in the RAWPs.

2.2 Design Approval and Permitting

The property owners had significant input on the restoration landscaping design and approved the plans for their property or properties. Beazer representatives (and in some cases, EPA representatives) met with property owners and residents to discuss the project in detail. In some cases, the property owners desired to avoid soil removal in areas where the existing landscape was important to them, recognizing that this meant a less complete removal of soil. Examples include: the owner of property G03 allowed soil replacement in the front (south) yard, but not the back, the owner of F01 required that large areas of existing landscaping be kept in place, the owner of E09 permitted soil replacement only in limited areas, and the owner of C07 only allowed soil replacement in a limited area of the yard. Beazer and EPA accommodated such requests to achieve full owner participation in the project and thus maximize the area of soil replacement.

EPA approved the RAWPs containing final designs for each property.

Beazer coordinated with the City of Gainesville to meet all substantive requirements of relevant local permits. A City right-of-way work permit was granted to make necessary road cuts for temporary irrigation piping, stormwater piping, and associated work. The City arborist approved tree replanting plans and granted tree removal permits. City permits are provided in **Appendix D**.

This Appendix also contains a table identifying additional trees that were removed but not included in the permits (with justification), trees permitted for removal but not actually removed, additional trees planted but not on the permit plans, and trees not planted per the permit plans (with justification). Overall tree mitigation requirements will be tallied after completion of on-Property remedial action which is expected to involve significant additional tree removal and replanting. The information in **Appendix D** is intended to provide a current tally of trees removed and replaced.

2.3 Temporary Relocation and Cleaning Assistance

Beazer provided a stipend to each property owner to cover lodging and meals for all residents of the property for one week, the maximum expected period of excavation and backfill for any individual property.

The stipend amounts were based on current per diem rates for Gainesville as published by the US General Services Administration. Residents were not required to relocate. Construction crews provided adequate and safe home ingress and egress for residents who chose not to relocate during excavation and backfill.

Beazer also included in the stipend an allowance to cover a home cleaning service as a courtesy after the completion of the soil removal and landscaping. The amount of the cleaning was based on the heated living area of the home and past charges in Gainesville for similar services (e.g. at the pilot property).

2.4 Utilities Location

Overhead and underground utilities on and adjacent to the subject parcels were identified using a combination of sources, including:

- The Sunshine One-Call utility marking service;
- Visible presence of utilities and utility appurtenances;
- Field markings completed by telephone and cable service providers;
- Approximate utility locations provided by Gainesville Regional Utilities; and
- A utility locating contractor using electromagnetic and ground-penetrating radar (GPR) equipment.

The underground utilities were field located prior to commencing with excavation. The Sunshine One Call service was used to facilitate field marking by all utility providers and shallow excavation was conducted to identify the locations and depths of underground utilities that were likely to be encountered during excavation. Identified underground utilities were marked in the field.

2.5 Preparation for Excavation

Prior to commencing excavation activities at a parcel, several initial activities were conducted, as indicated below:

- Trees to be saved and trees to be removed were marked with paint and flags in the field.
- All excavation areas were marked in the field per the final design using stakes, flags, field paint, etc.
- Silt fence was placed at the outer edges of the excavation areas to control erosion and protect against sediment migration.
- Fences were removed per the design drawings and discarded, unless otherwise marked for reuse.
- Tree-protection zones were field marked.
- Landscaping items to be removed for later use were stored at a convenient location at the remediation property of origin or on the Beazer Property.

2.6 C03 Trailer Demolition

An abandoned camper trailer, which had at one time been used as a residential abode, was located on property C03. Per the owner's instruction, Beazer had this structure demolished. Prior to demolition, a hazardous materials survey was conducted, which identified some asbestos in the building materials and miscellaneous materials in containers. The containers were disposed of in accordance with applicable regulations. The trailer was moved to the Beazer Property for wet demolition. Reports of the assessment and monitoring during demolition are provided in **Appendix E**.

2.7 Tree Removal

A local licensed subcontractor (SkyFrog) removed trees to ground level as indicated on the as-built drawings of **Appendix C**. The trees were shipped off-Site for use as a fuel source. Other vegetation was removed, and fences were removed and discarded per the design.

2.8 Stump Grinding

As needed to facilitate excavation, stumps were ground in place to a depth of at least one foot with dust monitoring and control measures such as water spray in use (see Sections 2.16 and 2.17). Stump grindings were left at the stump location for management with removed soil.

2.9 Soil Excavation

In accessible areas not within special protection zones, soil at subject properties was removed using an excavator. The target excavation depth was 1.0 foot, which was verified by the oversight engineer/technician as described below. This target depth is appropriate and conservative based on off-Property data, which indicate that concentrations exceeding cleanup goals are only in the upper 6-inch sample collection interval. By removing a conservative thickness (more than the 6-inch impacted zone), confirmation sampling was not needed.

In order to protect existing paved features and foundations, small buffer areas were established adjacent to pavement and structures for limited excavation. Within approximately 1 foot of

pavement and within approximately 2 feet of permanent buildings, only ground cover and a thin layer of soil were removed using careful digging procedures (e.g. with hand tools).

In tree-root-protection areas and other special areas designated on the design drawings, special tools and procedures were used to ensure protection of trees and property. For instance, manual digging or raking of soil from the protection zone into the adjacent excavation area was employed as appropriate. No storage of any construction or landscape materials occurred within tree protection zones. Excavation depths less than 1.0 ft were acceptable in these areas to prevent damage to tree roots or underground structures/utilities. At the outer edges of tree protection zones, the 1.0-ft cuts were made in a manner that cut roots cleanly rather than pulling roots.

Field stakes were used throughout the excavation areas to verify the target excavation depth during excavation (measuring from a line pulled across the excavation for pre-existing grade). Additionally, oversight personnel checked excavation depth using a laser level referenced to pre-determined elevations at a temporary bench marks. The target removal depth was 1.0 ft at the residential properties. At each measurement point, the post-excavation elevation was determined and compared to the pre-excavation elevation. If the difference (depth of excavation) rounded to the nearest 0.1 ft, was less than the target depth, then additional excavation was conducted to reach the target depth throughout the excavation.

2.10 Septic Tank Abandonment

During the course of excavation, a number of old, unused septic tanks were discovered. Twenty such tanks were found and abandoned during the project. In each case, an abandonment permit was filed with the Alachua County Health Department and the tank was pumped out, breached, and filled in place under supervision of Health Department staff. The abandonment procedure included puncturing the bottom of the tank and filling with clean sand, per Health Department protocol. Abandonment permits are included in **Appendix F**. All of the properties had pre-existing City sewer service.

2.11 Management of Removed Soil

Excavated soil was placed into a dump truck or small soil transporter at the remediation property. Excavated soil was transported to the designated removed-soil management areas on the Beazer Property. The management areas were surrounded by rubber-filled erosion-control wattles to prevent soil from washing off of the pile to other areas of the Property.

Figure 3 shows the locations of removed-soil management areas that are inside the planned soil consolidation area. Removed soil was segregated into different areas based on original location, as shown in **Figure 3**. Area A was created first, and includes the soil from the pilot property (E01) and from the Beazer Property adjacent to the pilot property. Area 1 also includes silt removed as part of unrelated maintenance of the on-Property drainage ditch – some silt had built up at the weir near the northeast corner of the Beazer Property and was removed in November 2013 and July 2014 to allow the weir to function correctly. Area 2 contains soil removed from the western edge of the Beazer Property, soil removed from City rights-of-way adjacent to the western Property boundary, and soil removed in Blocks A through I within 15 feet of the Beazer Property. Areas C and D exclusively contain off-Property soil that was not immediately adjacent to the Beazer Property. Soil in Areas C and D are therefore associated with lower concentration measurements.

The removed soil management areas were surrounded by rubber-filled erosion-control wattles during operations. They have been covered with grass-seed mats and watered to establish and maintain grass growth, thereby limiting erosion and dust generation.

2.12 Backfill

Clean off-Site soil was brought to each remediation parcel for placement in the excavation. Three local soil sources were identified for use. A sample from each source was tested to ensure that (a) the soil did not exhibit hazardous characteristics and (b) the soil did not contain levels of Site constituents or other common contaminants above Florida default residential SCTLs. The laboratory results are provided in Appendix C of the RAWP for Block E (Tetra Tech, March 7, 2014).

Clean soil was delivered to a clean-soil stockpile area on the Beazer Property (**Figure 3**). Equipment used to transport clean soil to the excavation and used for backfilling was decontaminated prior to use.

Backfill soil was placed into excavations using equipment similar to that used for the soil removal (i.e. small excavators). Soil was shaped and lightly compacted using grading equipment until reasonable consolidation was achieved. Dense compaction was not desired in landscaped areas because it would limit drainage and root growth.

At off-Property remediation properties, the upper 3 inches (minimum) of backfill is soil of relatively high organic content to promote plant vitality. This soil is referred to as “Johnson Soil” in the RAWPs and soil analysis reports. Organic backfill was also used in tree protection areas. The areas within tree protection zones were covered with high-organic-content soil and mulch as soon as practicable after the limited soil removal.

Backfill continued until the pre-restoration grade was achieved. In some areas the final grade was adjusted slightly to promote stormwater drainage. Beazer oversight personnel checked restoration elevations using a laser level from a pre-determined elevation at a temporary bench mark to each verification check point identified on the property survey. Generally, restoration was within 0.2 ft of the design elevation at elevation check points. The as-built drawings (**Appendix C**) indicate actual thickness of backfill determined from the field measurements.

2.13 Landscaping

Landscaping features were installed as soon as practicable after completion of backfilling. Landscaping generally followed the owner-accepted landscaping plans. Modifications to the final landscaping are noted on the as-built drawings in **Appendix C**.

Generous amounts of mulch were used in plantings areas to provide additional organic material for plant vitality. Plantings were placed by local landscapers (Florida Greenkeepers) in topsoil-filled holes to help promote growth. Locations for plants within planting beds were occasionally adjusted by the landscaper during installation (such minor adjustments are not generally noted on the as-built drawings).

The landscape designer (Zamia Design) inspected all completed landscapes after installation. If any issues were identified, they were brought to the attention of the landscaper and appropriate corrections were made.

2.14 Landscape Irrigation

For properties that previously had landscape irrigation systems, new landscape irrigation systems were installed. For other properties, temporary water lines for landscape irrigation were installed. Beazer provided irrigation water and conducted irrigation via these temporary lines for at least 180 days after landscape installation. The temporary water lines were then removed.

2.15 Well Abandonment

Two shallow irrigation wells were abandoned during the project (on June 27, 2014), with consent of the property owners. The wells were at properties A11 and D08. A third well, at property C01, was also scheduled for abandonment but the property owner subsequently changed her mind and the well was therefore left in place. Well abandonment records are provided in **Appendix G**.

2.16 Dust and Noise Monitoring

Four real-time dust monitors were used in work zones during the soil removal and replacement work. The monitors measured respirable dust concentrations: particulate matter less than 10 microns in aerodynamic diameter (PM₁₀). The monitors were placed outdoors along the work-zone perimeter. Monitoring locations were adjusted as the work progressed. **Figure 4** shows measured average daily dust concentrations; all measurements recorded at all monitors during each work day were averaged to generate this chart.

Two work-zone-perimeter noise monitors were used to assess noise levels during the work. Although some heavy machinery was used during the work (e.g. chain saws, vacuum trucks, excavators), excessive noise for long durations did not occur. Hearing protection was used by workers in close proximity to operating machinery with high noise levels. Monitoring locations were adjusted as the work progressed. **Figure 5** shows measured daily-average and peak noise in comparison to a range of typical ambient noise levels.

Appendix B of the RAWP for Block E (Tetra Tech, March 7, 2014) provides specifications of the dust monitors, noise monitors, and outdoor enclosures that were used. The monitors were mounted atop tripods. The monitors were connected wirelessly to relay measured dust concentrations to an on-Property Site computer system for continuous monitoring and data recording. A weather monitoring station was also connected to this system. Additionally, the dust monitors were set to alarm if and when an action level was reached.

The oversight personnel ensured that manufacturer operation recommendations were followed to ensure instrument calibration and data validity.

Dust and noise monitoring continued through all phases of work, including: stump grinding, excavation, soil replacement, and sod placement. Monitoring was conducted each working day from the beginning of work to the end of work.

During work, the monitors were set to alarm whenever the instantaneous PM₁₀ concentration exceeded 1.5 mg/m³ or whenever the 15-minute average concentration exceeded 0.150 mg/m³. This let the field team know that the causes for dust generation should be investigated and dust control measures should be considered in order to keep average daily dust levels below the NAAQS.

Appendix H provides a list of all instances when the dust action level was exceeded, along with the cause of the exceedance, as determined by the oversight personnel, and any actions taken in response to the exceedance.

Electronic files provided in **Appendix I** provide all dust readings, noise readings, and weather readings during the monitoring period.

2.17 Dust Control

As routine practice, water sourced from a metered GRU fire hydrant was spread on soil before and during excavation, as necessary, to suppress/control generation of dust from soil. The water spread was controlled to keep the soil moist but not cause water runoff. Excavation was not performed during inclement weather to prevent transport of soil via erosion/stormwater runoff or dust.

Temporary dust barriers (flexible fencing) was used along the Beazer property boundary after removal of trees and fences there and before backfill was completed.

As explained in Section 2.16 above, dust monitoring was conducted throughout the stump grinding, excavation, and backfill work to ensure that dust generation remained low and to trigger control measures if needed. See **Appendix H** for explanations of action-level exceedances during the work.

Also, all temporary access roads were constructed using clean materials from an off-Site source to eliminate or limit the potential for spreading impacted dust via vehicle traffic along haul routes. This includes access roads constructed on the Beazer Property (**Figure 3**) and temporary access roads that were constructed within the off-Property blocks for equipment access.

2.18 Equipment Contamination Mitigation

In order to limit the potential for transport of impacted soil via remediation equipment, several precautions were taken:

- Temporary access roads were constructed with clean materials from an off-Site source.
- When possible, soil-transport trucks and roll-offs were placed on hard surfaces, temporary access roads, mats, or in areas that have already been excavated in order to eliminate or limit contact of transport-truck wheels with impacted soil.
- Soil adhering to the wheels or buckets of excavation equipment, or to other equipment coming in contact with impacted soil, was brushed or washed away and collected with the excavation spoils for removal.
- Work was delayed during thunderstorms and extremely wet conditions to avoid tracking mud.
- A water truck and a street sweeper were used as needed to collect soil from street surfaces. The material was collected with excavation soils for removal.

2.19 Erosion and Stormwater Control

Due to the shallow (1.0 ft) excavation depth, and the relatively short periods of time with open excavations and uncovered backfill, erosion and stormwater control during construction were not major issues during the work. Nonetheless, erosion control devices were installed around

the perimeter of the excavation areas to limit runoff and prevent sediment migration. The erosion-control devices installed around the perimeter of the excavation areas remained in place until landscaping had been conducted to establish ground cover.

2.20 Stormwater Observation

Field staff inspected grades at all properties during rainstorms to evaluate stormwater runoff conditions. Minor grading adjustments were made, as needed, to promote runoff.

2.21 Stormwater Improvements

A more significant stormwater improvement was needed along NW 28th Avenue to avoid stormwater ponding near homes (in particular B06) during heavy rains. Due to the low elevations of the home floors relative to the road and nearby potential water outlets, no simple grading solutions could be found. Therefore an improved system with an exfiltration drain was designed and implemented.

Appendix J provides details of the system that was installed on NW 28th Avenue. The system includes roof drains at property B06, yard drains at four properties on the south side of 28th Avenue, an exfiltration trench and perforated pipe in the roadway right-of-way, and underground connecting pipes. The City of Gainesville Public Works Department approved the design prior to implementation.

2.22 Other Infrastructure Improvements

As part of a September 2014 settlement agreement between the City of Gainesville and Beazer, Beazer provided funds to the City that were based, in part, on the City's estimated cost for infrastructure improvements in the area of off-Property remediation. The infrastructure improvements that comprised the cost calculation included: installation of new water mains and water meters on several of the streets in the remediation area, installation of stormwater drainage improvements adjacent to several streets in the remediation area, installation of new cleanouts on sewer service lines, and repaving of roads in the remediation area. According to City officials, these improvements are planned for 2016.

2.23 Notice of Completion

In accordance with the RAWPs, for each property, after completion of soil replacement and landscape installation, Beazer issued a Notice of Completion to the property owner. At that time, the owners were encouraged to identify any remaining issues and these issues were subsequently addressed by Beazer's contractors.

2.24 Corrective Actions

Throughout the restoration project, Beazer provided points of contact for property owners and residents to voice any concerns or requests regarding the work being done. Beazer followed up on all issues and kept a punch list of items that needed to be inspected, installed, repaired, or replaced. These items were addressed by the appropriate contractor(s) at the earliest practical time.

In instances where remediation activities directly caused property damage (e.g. broken windows, severed telephone lines), Beazer made appropriate repairs or replacements in order

to leave overall conditions of the property similar to, or better than, they were prior to remediation.

Likewise, where Beazer-installed landscape vegetation failed to become viable due to installation or other material defects, Beazer replanted vegetation in order to implement the original intended landscaping plan or an alternative agreeable to the property owner and Beazer. However, Beazer will not be responsible for landscape failure due to lack of irrigation by the owner or for long-term maintenance of off-Property landscapes.

3 CHRONOLOGY

The pilot project (E01 soil replacement and restoration) was conducted between November 11, 2013 and December 6, 2013. Before, during and after this pilot project, Beazer representatives worked with other property owners to obtain remediation agreements.

The full-scale soil replacement project began on February 17, 2014. Initial activities included on-Property preparation: initiating dust and noise monitoring; clearing trees near the Property boundary adjacent to Blocks H and E; improving temporary access roads; installing a new truck scale; and taking delivery of equipment and materials.

Tree clearing and site preparation at properties in Block H began on February 19, 2014. Excavation began at property H04 on March 4, 2014. From there, work proceeded generally southward from Block H to Block G, Block E, Block D, Block C, Block B, Block A, then Block I. The northern part of Block J (adjacent to NW 23rd Avenue) was then completed, followed by Block K, and the southern part of Block J (adjacent to NW 21st Avenue). **Table 2** lists the main milestone dates for work at each remediation property.

There were many cases where work was done out of sequence due to not having a completed and signed remediation agreement in hand (e.g. F01, E11, D09, C08, C07, A02) during the initial work for the surrounding block of properties. Additionally, landscaping activities at J01 (the Genesis School) were prioritized in the schedule (i.e. completed ahead of some properties where soil replacement had occurred earlier) in order to complete restoration ahead of the student start date for the 2014-2015 school year.

The drainage improvements at NW 28th Avenue were installed beginning on September 16, 2014. Most of the work was completed by September 30, 2014, with final finish completed on October 23, 2014.

Restoration was considered complete at off-Property parcels on November 4, 2014. After that date, final punch-list items were completed, finishing activities on the Beazer Property were conducted (such as final installation of grass-seed mats at the consolidation areas), and the contractors demobilized from the Site. Implementation was considered complete on November 14, 2014. The total duration of the project (not including the pilot) was 9 months.

A Beazer subcontractor continued irrigation at off-Property parcels without permanent irrigation systems for at least 180 days after installation of grass and plants. The contractor then removed the temporary irrigation piping. All Beazer-provided temporary irrigation was completed by May 5, 2015.

4 PERFORMANCE STANDARDS AND CONSTRUCTION QUALITY CONTROL

As stated in the RAWPs, the primary performance requirement for the work was to remove the target depth (generally 1 ft) of soil in the remediation areas and replace with clean soil. This was measured in the field and documented in the as-built drawings of **Appendix C**. These measurements also document construction quality control for this project.

5 INSPECTIONS

Internal inspections were made throughout the project by the field oversight personnel, design engineers, landscape designers, and Beazer personnel. Tours and informal visits were also conducted for local officials during the work. An EPA oversight contractor was on Site each day during the work.

A pre-final inspection for the project was held on November 19, 2014. In addition to representatives for Beazer, attendees included representatives from EPA, FDEP, Alachua County, and the City of Gainesville.

6 OPERATION AND MAINTENANCE

Beazer irrigated newly installed landscapes on off-Property parcels for at least 180 days after installation. Beazer also conducted some landscape mowing and weed control in the neighborhood during the project as a courtesy. Ongoing maintenance of landscaping is the responsibility of the property owners.

Beazer has irrigated the on-Property removed-soil management areas and vegetation has been established. Beazer also irrigated the grass and trees planted on Beazer Property just inside the western Property boundary. Beazer will continue to irrigate these areas as needed and ensure that they do not generate dust or sediment.

No other ongoing operation or maintenance is required.

Final disposition of the removed-soil management areas will be defined by the design to be completed for Design Track 5 of the RD process.

Table 2. Remediation Property Summary

OU5 Property Summary Table: Revision 1.0, July 7, 2015

Property	Owner	No. Tax Parcels	Residential Structures	Commercial Structures	As-Built Figure No. ¹	Clearing Began	Excavation Began	Backfill Completed	Restoration Completed ²
A01	Grant Cooper	1	1		1	6/13/2014	6/13/2014	6/17/2014	8/21/2014
A02	Roy H. Geiersbach	1	1		2	8/26/2014	9/9/2014	9/13/2014	9/26/2014
A03	Asghar Etemadi	1	1		3	6/3/2014	6/19/2014	6/24/2014	8/21/2014
A04	Karen Scott	1	1		4	6/2/2014	6/16/2014	6/25/2014	8/12/2014
A05	Donald Fusso	1	1		5	6/2/2014	6/19/2014	6/21/2014	8/23/2014
A06	Michael Curry	1	1		6	6/2/2014	6/19/2014	6/24/2014	8/23/2014
A07	Ulysees Rushing Jr & Yvonne Rushing	1	1		7	6/8/2014	6/17/2014	6/21/2014	8/23/2014
A08	Carol Bosshardt	1	1		8	6/13/2014	6/17/2014	6/21/2014	8/23/2014
A09	Michelle Khurana	1	1		9	6/3/2014	6/18/2014	6/23/2014	8/23/2014
A10	George Ricker	1	1		10	6/13/2014	6/17/2014	6/23/2014	8/23/2014
A11	Susan Turlington	1	1		11	6/20/2014	7/8/2014	7/10/2014	9/20/2014
A12	Allen Howard & Patricia Johnson	1	1		12	6/13/2014	6/24/2014	6/30/2014	8/23/2014
A13	Richard Bolton	1	1		13	6/13/2014	6/25/2014	6/30/2014	8/23/2014
A14	Dale E. Turlington	3	2	1	14A, 14B	6/20/2014	6/27/2014	7/2/2014	8/26/2014
B01	Erin Browning-Paine & J. Dea Browning	1	1		15	5/29/2014	6/9/2014	6/11/2014	7/10/2014
B02	Asghar Etemadi	1			16	5/21/2014	6/6/2014	6/11/2014	7/1/2014
B03	James Duncan	1	1		17	5/21/2014	6/4/2014	6/10/2014	7/10/2014
B04	Daniel R and Derek R Cockerham	1	1		18	5/20/2014	6/3/2014	6/9/2014	7/10/2014
B05	Karen Cramer	1	1		19	5/21/2014	6/4/2014	6/9/2014	7/24/2014
B06	Charles Mills	1	1		20	5/20/2014	6/3/2014	6/7/2014	7/14/2014
B07	Edna Haufler	1	1		21	5/20/2014	5/28/2014	5/31/2014	7/24/2014
B08	Ted & Deena Strauss	1	1		22	5/20/2014	5/28/2014	6/5/2014	7/24/2014
B09	Paul Jankura	1	1		23	5/16/2014	5/28/2014	5/31/2014	7/31/2014
B10	Matthew Walton	1	1		24	5/20/2014	5/31/2014	6/4/2014	7/11/2014
B11	John & Ann Hudson	1	1		25	5/15/2014	5/31/2014	6/4/2014	7/23/2014
B12	Timothy Reynolds	1	1		26	5/16/2014	5/29/2014	6/2/2014	8/12/2014
B13	Karen Cain	2		1	27	5/15/2014	5/21/2014	6/3/2014	7/11/2014
B14	Susan Turlington	1		1	28	5/30/2014	5/30/2014	6/14/2014	8/23/2014
C01	Farinda O'Steen	1	1		29	4/26/2014	5/3/2014	5/13/2014	6/26/2014
C02	Thomas Merrill	1	4		30	4/23/2014	5/3/2014	5/13/2014	6/26/2014
C03	Susan Turlington	1	1		31	4/26/2014	5/7/2014	5/13/2014	6/6/2014
C04	Elsie Butler & Agnes O'Steen	1	1		32	4/30/2014	5/13/2014	5/14/2014	6/6/2014
C05	William S Palmer	1	1		33	4/24/2014	5/12/2014	5/15/2014	6/6/2014
C06	James Ludovici & Rebecca Moss	1	1		34	4/25/2014	5/8/2014	5/17/2014	6/18/2014
C07	Michael Drake	1	1		35	8/25/2014	8/27/2014	9/3/2014	9/8/2014
C08	Susan (Kayla) Sosnow	1	1		36	7/9/2014	7/15/2014	7/31/2014	10/1/2014
C09	Alba Villanueva	1	1		37	4/25/2014	5/15/2014	5/19/2014	6/18/2014
C10	Susan Turlington	1	1		38	5/13/2014	5/15/2014	5/21/2014	6/19/2014
C11	John Cloyd	3	1	1	39	4/30/2014	5/15/2014	5/22/2014	6/18/2014
D01	Elsie Butler & Agnes O'Steen	2	3		40	4/8/2014	4/8/2014	5/2/2014	5/13/2014
D02	William Stoughton	1	1		41	4/9/2014	4/9/2014	4/14/2014	5/13/2014
D03	John & Natalie Williams	1	1		42	4/12/2014	4/14/2014	5/3/2014	5/14/2014
D04	George Ricker	1	1		43	4/12/2014	4/15/2014	4/17/2014	5/14/2014
D06	Scott & Jayne Hargrave	2	2		44	4/12/2014	4/25/2014	5/1/2014	5/16/2014
D08	Thu-Hien Nguyen	1	1		45	4/8/2014	4/11/2014	5/1/2014	5/13/2014
D09	James Larsen	1	2		46	6/18/2014	6/23/2014	6/26/2014	7/8/2014
D10	John Monkus	2	1		47	4/3/2014	4/12/2014	4/29/2014	5/13/2014
D11	Federal Home Loan Mortgage Corporation	1	1		48	4/12/2014	4/14/2014	6/10/2014	7/10/2014
D13	Selena Pak Patterson	1	1		49	4/12/2014	4/14/2014	4/28/2014	5/21/2014
D14	Gerald & Kathy Bevis	2	5		50	4/5/2014	4/16/2014	4/25/2014	5/13/2014
D16	C. Edward Beste	1	4		51	4/5/2014	4/22/2014	4/26/2014	5/20/2014
E01	Terroll & Cindy Anderson	1	1		52	11/11/2013	11/20/2013	11/25/2013	12/6/2013
E02	Erik Hushelpeck & Heather Vaughn Hushelpeck	1	1		53	3/14/2014	3/25/2014	4/1/2014	4/11/2014
E03	Roger & Barbara Jean Bryant	1	1		54	3/11/2014	3/18/2014	3/26/2014	4/7/2014

Table 2. Remediation Property Summary

OU5 Property Summary Table: Revision 1.0, July 7, 2015

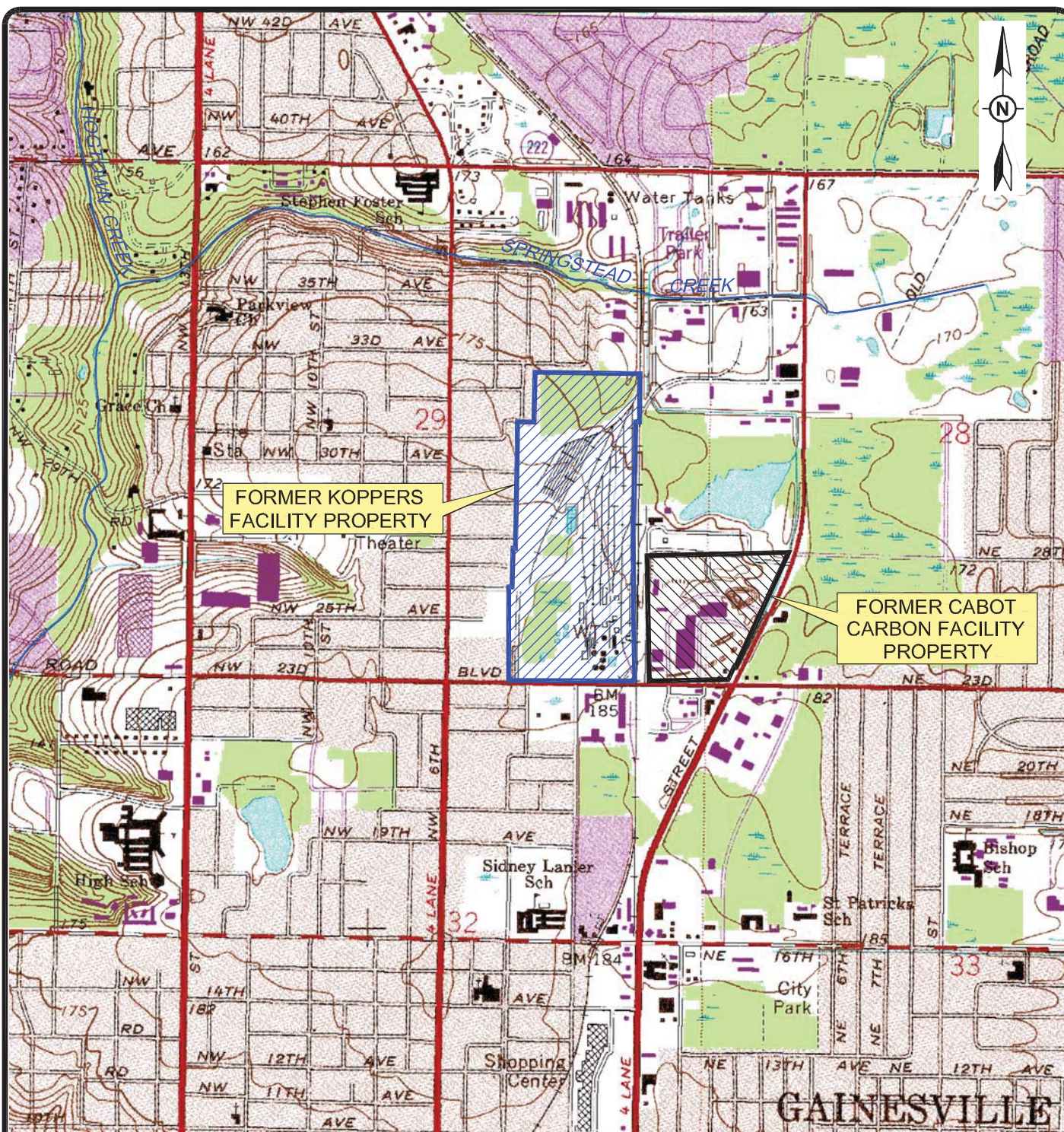
Property	Owner	No. Tax Parcels	Residential Structures	Commercial Structures	As-Built Figure No. ¹	Clearing Began	Excavation Began	Backfill Completed	Restoration Completed ²
E04	Ginger Boggs	1	1		55	3/11/2014	3/16/2014	3/26/2014	4/5/2014
E05	Douglas Williams	1	1		56	3/14/2014	4/3/2014	4/8/2014	4/17/2014
E06	Sharon Sheets	1	1		57	3/15/2014	3/25/2014	4/3/2014	4/23/2014
E07	Brenda Forrester	1	1		58	3/17/2014	3/26/2014	4/1/2014	4/11/2014
E08	Patricia Brown	1	1		59	3/17/2014	3/21/2014	3/28/2014	4/24/2014
E09	Troy Affenberg & Dennis Howard Jr.	1	1		60	4/7/2014	4/7/2014	7/16/2014	8/8/2014
E11	James Larsen	2	2		61	7/1/2014	7/10/2014	7/16/2014	8/8/2014
E16	Larry Seale & Elizabeth Cox	1			62	3/31/2014	4/1/2014	4/3/2014	5/17/2014
F01	Carol Jean Portner	1	1		63	3/31/2014	4/1/2014	4/7/2014	4/11/2014
G01	James Lovett	1	1		64	2/19/2014	3/11/2014	3/20/2014	4/1/2014
G03	Helen Beard	1	1		65	2/19/2014	3/14/2014	3/20/2014	4/2/2014
G05	Shawn Jenkins	1	1		66	2/19/2014	3/11/2014	3/20/2014	4/4/2014
H01	Nancy Day	1	1		67	2/19/2014	3/8/2014	3/14/2014	3/28/2014
H02	Joni Dowst	1	1		68	2/19/2014	3/7/2014	3/11/2014	3/27/2014
H03	Melissa Lewis	1	1		69	2/19/2014	3/6/2014	3/11/2014	3/27/2014
H04	Douglas Bennion	1	1		70	2/19/2014	3/4/2014	3/6/2014	3/25/2014
I01	Linda Pickrell & David McCally	1	2		71	6/26/2014	7/8/2014	7/12/2014	9/5/2014
I02	Freddie Mac	1	2		72	6/26/2014	7/9/2014	7/14/2014	9/5/2014
I03	Gerald & Kathy Bevis	1	2		73	6/13/2014	7/9/2014	7/18/2014	9/5/2014
I04	Donald & Deborah Harford	1	2		74	6/13/2014	7/15/2014	8/2/2014	9/5/2014
I05	Jean Robinson	1	1		75	6/13/2014	8/1/2014	8/6/2014	9/5/2014
I07	Randall Winegardner	1	1		76	6/11/2014	6/30/2014	7/1/2014	9/6/2014
I08	Carolyn McPherson	1	1		77	6/13/2014	6/27/2014	6/28/2014	9/6/2014
J01	Gerald & Joanne Schackow and Martin Liquori	1	1	1	78	7/15/2014	7/18/2014	8/5/2014	8/21/2014
J02	HJ Interiors, Inc.	1		1	79	7/31/2014	8/1/2014	8/11/2014	9/3/2014
J03	HJ Interiors, Inc.	1		1	79	7/31/2014	8/5/2014	8/12/2014	9/3/2014
J05	Carolyn McPherson, Trustee for Ruth W Hope Revocable Trust	1	1		80	9/29/2014	10/2/2014	10/9/2014	10/27/2014
J06	Larry and Teressa E Archer	1	1		81	9/30/2014	10/1/2014	10/7/2014	10/27/2014
J07	Annette Thomas	1	1		82	9/30/2014	10/1/2014	10/7/2014	10/27/2014
J08	Gerald and Kathy Bevis	1	1		83	10/1/2014	10/2/2014	10/14/2014	10/28/2014
J09	Keith Roberts	1	1		84	10/2/2014	10/14/2014	10/18/2014	10/29/2014
J10	Gary Bret Wilder	1	1		85	10/3/2014	10/16/2014	10/21/2014	11/4/2014
K01	KJO Properties, LLC	1	1		86	8/11/2014	8/12/2014	8/19/2014	9/23/2014
K02	Azalea Center, Inc. Hank Kittles and Ernie English	1		1	87	8/19/2014	8/19/2014	8/22/2014	9/26/2014
K07	Cheryl Cooke, President Gator Village Apartments	1	1		88	9/4/2014	9/4/2014	9/8/2014	9/24/2014
K10	Leilani C. Cook	1	1		89	8/21/2014	8/22/2014	8/27/2014	9/26/2014
Beazer/ROW	Beazer East Inc. (West Edge of Property) and City of Gainesville (Right of Way for NW 4th Terrace)				90-94 ³	11/11/2013	11/20/2013	10/21/2014	11/14/2014
TOTAL		100	103	8					

Notes:

1 See Appendix C for As-Built Drawings.

2 Restoration completion date is when all restoration activities completed except punch-list items and temporary (180-day) irrigation service.



3 See Appendix C Drawings 1, 40-41, 52-55, 67-70 and 90-94 for restoration details on the west edge of the Beazer Property. (Not included in count of tax parcels or structures.)



SOURCE: U.S.G.S. QUADRANGLE GAINESVILLE
EAST, FLA 1966 (PHOTOREVISED 1988)

NOTE:
FEATURES SHOWN AT FORMER KOPPERS
FACILITY DO NOT REFLECT CURRENT
CONDITIONS.

LEGEND

-  FORMER KOPPERS
FACILITY PROPERTY
-  FORMER CABOT
CARBON FACILITY
PROPERTY

0 1500 3000
SCALE IN FEET



FLORIDA

TITLE:

SITE LOCATION

LOCATION:

**Cabot Carbon/Koppers Superfund Site
Gainesville, Florida**

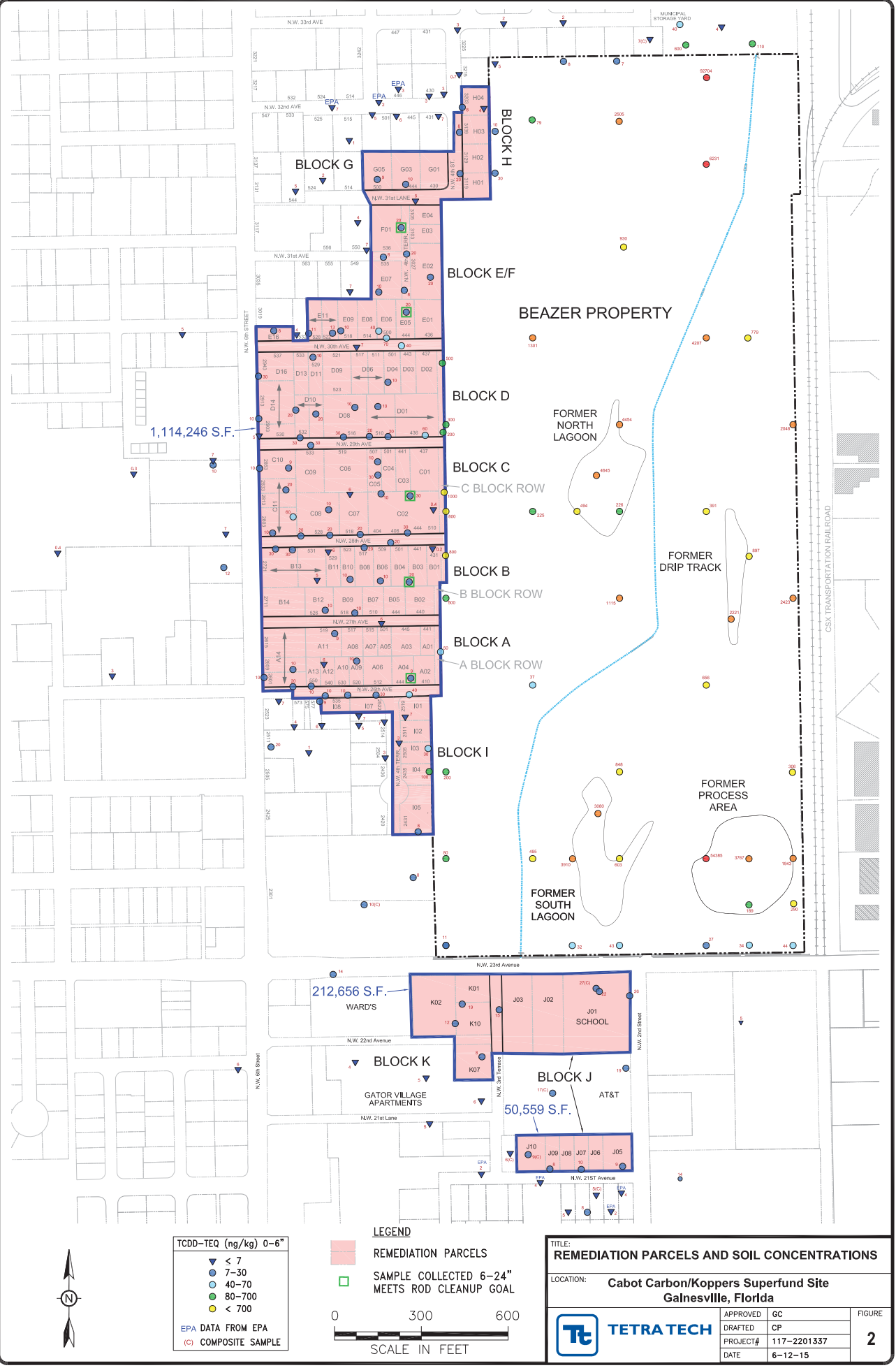


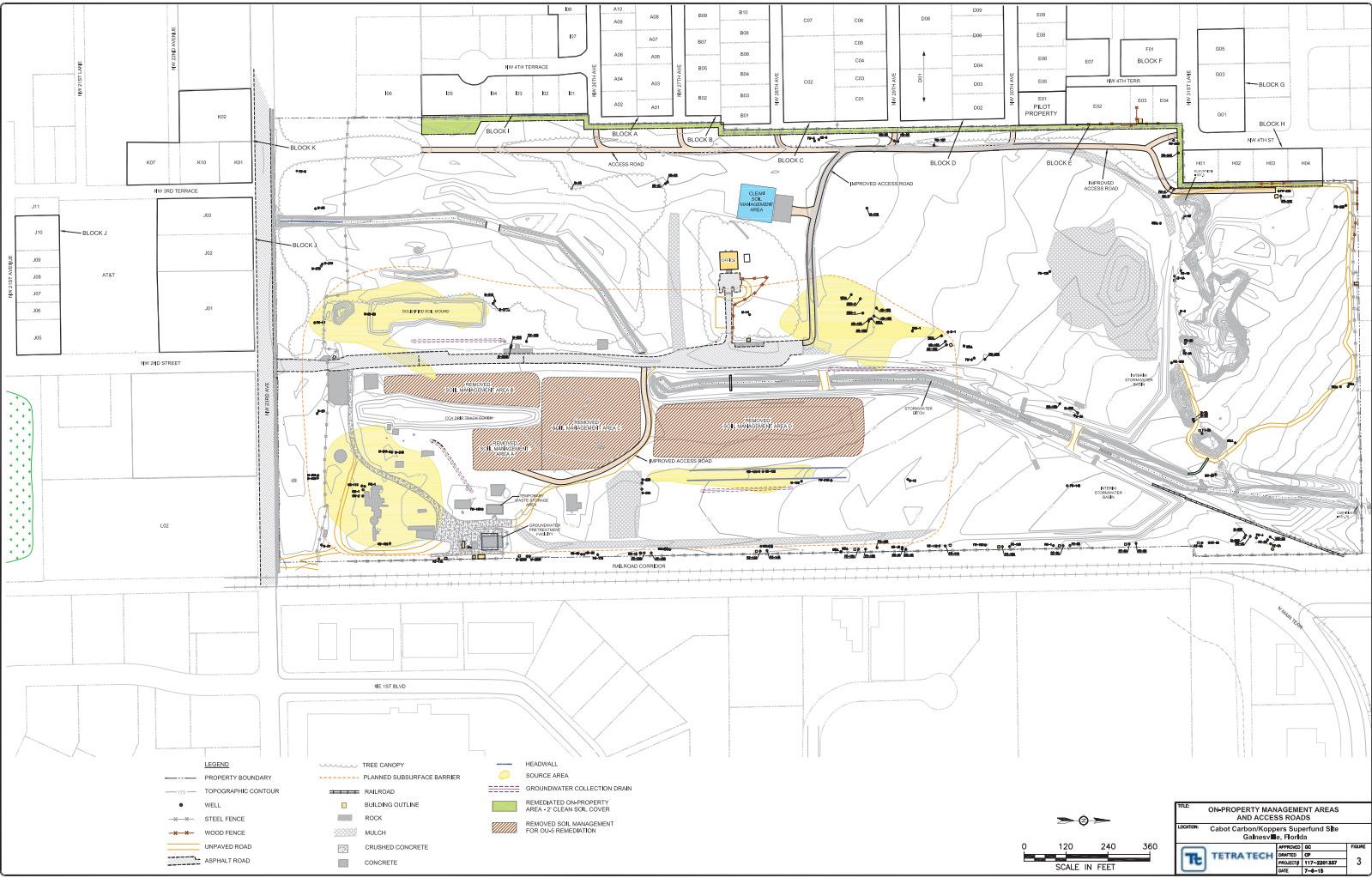
TETRA TECH

APPROVED	GC
DRAFTED	CP
PROJECT#	117-2201283
DATE	7-6-15

FIGURE

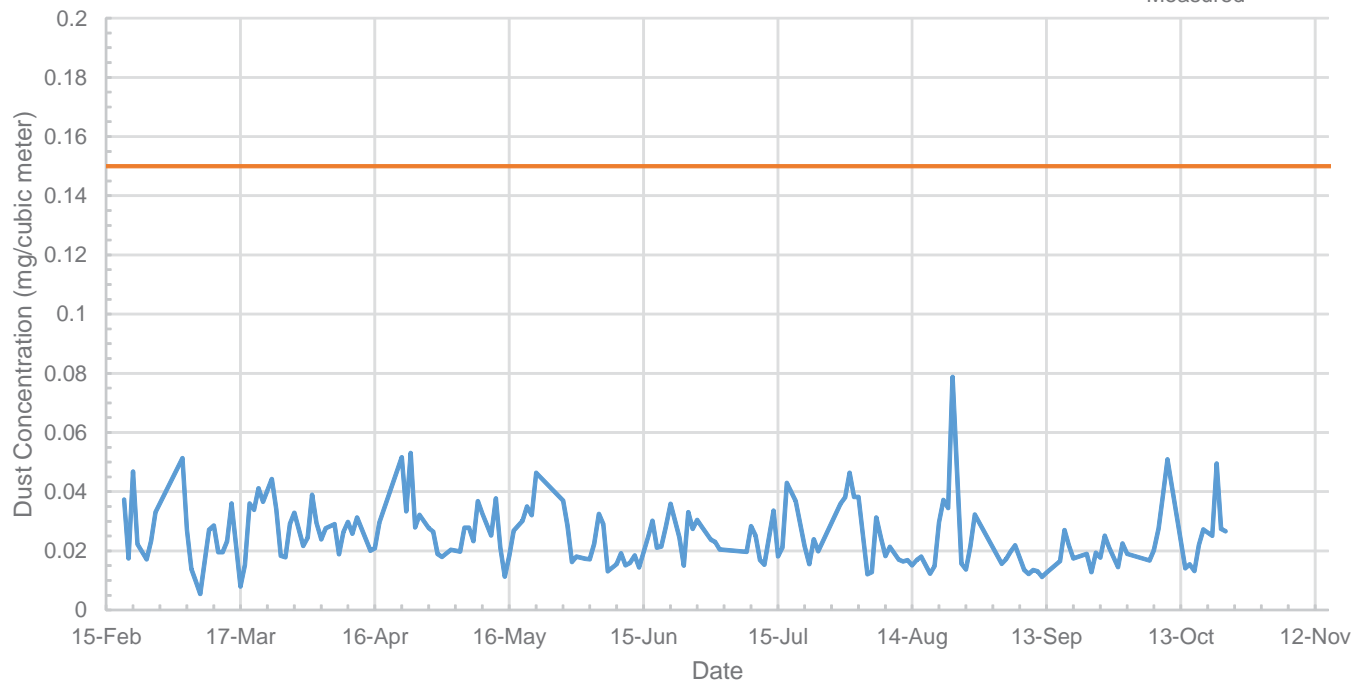
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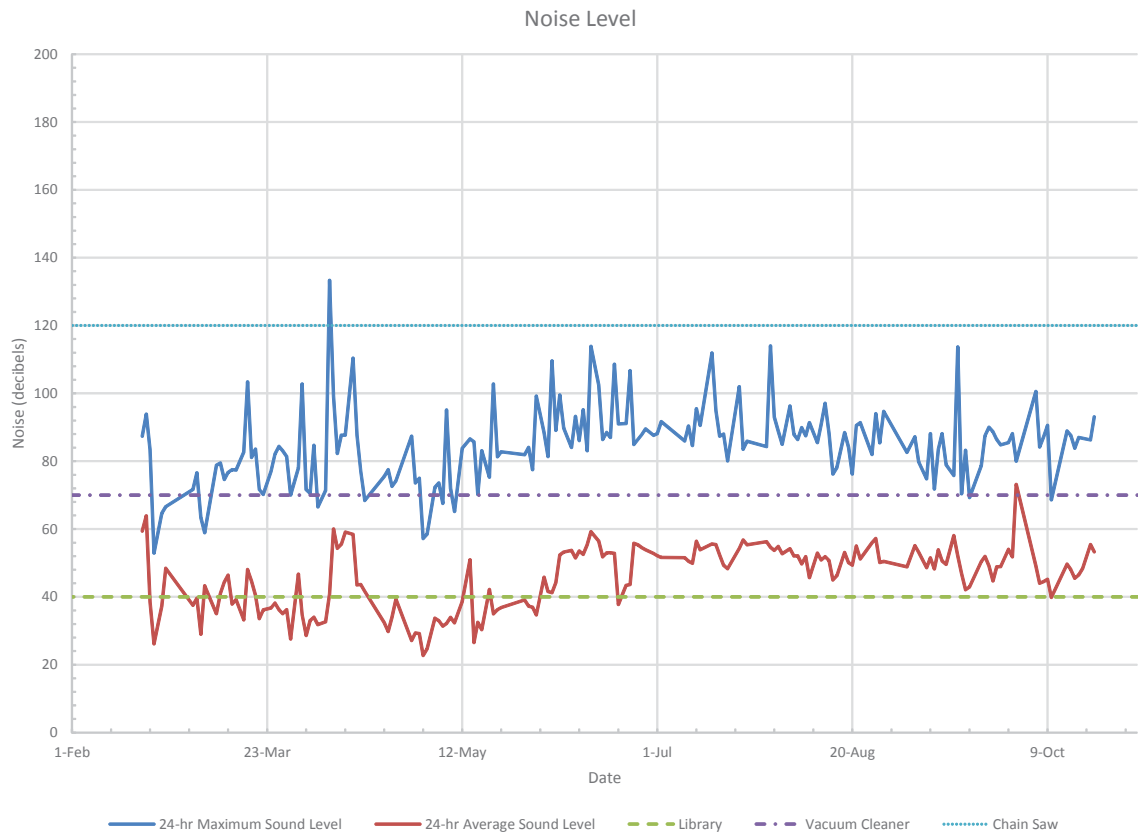



24-hr Average Dust Concentration

— Action Level
— Measured



TITLE: AVERAGE DAILY DUST CONCENTRATION			
LOCATION: Cabot Carbon/Koppers Superfund Site, Gainesville, Florida			
 TETRA TECH	APPROVED	GC	FIGURE 4
	DRAFTED	CP	
	PROJECT#	117-2201337	
	DATE	7-6-15	



TITLE:			MEASURED DAILY NOISE LEVELS
LOCATION:			Cabot Carbon/Koppers Superfund Site, Gainesville, Florida
 TETRA TECH	APPROVED	GC	FIGURE 5
	DRAFTED	CP	
	PROJECT#	117-2201337	
	DATE	6-16-15	

APPENDIX A.

EXAMPLE ACCESS AGREEMENT FOR RESTORATION

ACCESS AGREEMENT

This **ACCESS AGREEMENT** ("Agreement") is made and entered into on the date when this Agreement is signed by all Parties (the "Effective Date"), by and between

KAREN C SCOTT (whether one or more, "Owner"),
a home owner, with a contact and address of
444 NW 26TH AVE GAINESVILLE, FL 32609

and **Beazer East, Inc.** ("Beazer"), a Delaware corporation, with a contact and address of Mitchell Brouman, Beazer East, Inc. c/o Three Rivers Management, Inc., Manor Oak One, Suite 200, 1910 Cochran Road, Pittsburgh, PA 15220.

WHEREAS, Owner is the owner of certain real property situated in the City of Gainesville, Alachua County, Florida, as more particularly identified as the land parcel(s) with Alachua County Property Tax ID Number(s): 08481-008-000 and depicted on the map attached as **Exhibit A** hereto (the "Property"); and

WHEREAS, Beazer has been alleged responsible for certain liabilities associated with the Cabot Carbon/Koppers Superfund Site ("Site"), including without limitation, with implementation of certain environmental investigation and/or remediation at and near the Site, which lies near the Property, and Beazer wishes to gain access to the Property to facilitate activities associated with resolution of its liabilities, including investigation and/or remediation of off-Site areas, as more particularly described herein;

NOW, THEREFORE, for and in consideration of the premises and the mutual covenants herein contained and good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Owner and Beazer (collectively, the "Parties," and each individually, a "Party") agree as follows:

1. **Grant of Access/Permitted Activities.** So long as this Agreement is in effect, Owner hereby grants to Beazer and to Beazer's officers, employees, representatives, agents, invitees, contractors, consultants, and service providers (collectively, the "Beazer Parties") a non-exclusive license and right of access to, and ingress and egress from, through, upon, across, and over, the Property for the limited purpose of allowing Beazer and the Beazer Parties, at Beazer's sole cost and expense, to enter and use the Property for those activities associated with or required for implementation of off-Site remediation, which activities and the approximate timing of such activities are identified on **Exhibit B** hereto, and shall include any additional activities that Owner and Beazer may subsequently agree in writing to add to **Exhibit B** (collectively, the "Activities"). Owner represents and warrants to Beazer that: (a) Owner has the full right and authority to enter into this Agreement; and (b) that this Agreement does not constitute a violation or default under any other agreement, encumbrance or understanding that Owner has with any third party affecting the Property. It is hereby agreed and understood that this Agreement does not grant access to the interior of any living structure (i.e., Owner's house) located on the Property; if such access is required due to unforeseen or emergency circumstances, then Beazer and the Beazer Parties' shall request Owner's consent, which consent will not be unreasonably withheld based on the nature of the circumstances giving rise to the request.

2. Relationship of Parties/No Property Interest Conveyed. This Agreement shall not operate or be construed to create or establish Beazer as the agent or representative of Owner. In addition, this Agreement shall not operate or be construed to create or establish the relationship of landlord and tenant between Owner, on the one hand, and Beazer or any Beazer Parties, on the other hand, and this Agreement shall not grant an easement or right-of-way in favor of Beazer or any Beazer Parties. No property interest is conveyed hereby. Owner has as absolute, complete, and unimpeded right to deal with the Property as any other owner with fee simple title, and this Agreement is intended solely to allow Beazer and the Beazer Parties access to the Property for the limited purpose of conducting the Activities. This Agreement is not intended, and shall not be deemed, to be a covenant running with the land. Beazer shall not record, or attempt to record this Agreement in any public office or forum. However, Owner acknowledges and agrees that Beazer and the Beazer Parties shall have an irrevocable license to access and use the Property for the Activities described herein for the term described in Paragraph 3, below. In addition, while this Agreement is in effect, if Owner conveys the Property or an interest therein to a third party, Owner shall, prior to said conveyance: (a) provide a copy of this Agreement to that third party; (b) cause that third party to execute a consent to the terms of this Agreement; and (c) provide the original executed consent of the third party to Beazer.

3. Term and Termination. This Agreement shall commence upon the Effective Date and terminate upon the earlier of: (a) Completion; or (b) December 31, 2014, unless Owner and Beazer agree in writing to extend such termination date. For purposes of this Agreement, "Completion" shall occur on the date Owner receives a written statement of completion to be delivered by Beazer or a Beazer Party upon completion of post-remedial landscaping.

4. Temporary Relocation and Cleaning Assistance Payment. If the Property is occupied by residents residing in an on-Property living structure as of the date that the Activities commence, then Beazer shall pay to Owner: (a) an amount equal to \$ 707.07 for each occupied bedroom in such living structure – this amount is intended to compensate for relocation of occupants during the period when the Beazer Parties conduct active soil removal and replacement upon the Property; and (b) an amount equal to \$ 382.50 per occupant – this amount is intended to compensate for the cost of meals during said period. In addition to the foregoing, if the Property contains an on-Property living structure as of the Effective Date, whether or not the Property is occupied at the time the Activities commence, Beazer shall pay to Owner \$0.20 per square foot of heated living space - this amount is intended to compensate Owner for the cost of a professional cleaning service that could clean the living structures after the Activities are complete, should Owner so desire. Payments required under this Paragraph 4, if any, shall be delivered to Owner prior to commencement of the Activities.

5. Costs and Expenses; Safety and Security. Any and all costs and expenses associated with the performance of the Activities shall be the sole responsibility of, and be borne exclusively by, Beazer. The safety and security of all materials, equipment, machinery, tools, property, supplies, and personnel associated with performance of the Activities that are utilized or situated on, at, or near the Property shall be the sole responsibility of Beazer.

6. **Conveyance and Acceptance at Completion.** The Activities shall be deemed complete by Beazer's delivery of a written notice of completion to Owner stating that Beazer has completed all soil removal, clean soil replacement and landscaping activities detailed on **Exhibit A** and described in **Exhibit B**. Effective upon the Owner's receipt of written notice of completion, Beazer hereby conveys, assigns, transfers and delivers to the Owner all right, title and interest in and to any improvements, landscaping, alterations, fixtures, equipment or materials installed in, on or below the Property by Beazer, which improvements, landscaping, alterations, fixtures, equipment and materials are hereby conveyed, assigned, transferred and delivered on an AS IS, WHERE AS basis, TO HAVE AND TO HOLD, unto the Owner, its successors and assigns, FOREVER, and Beazer disclaims all and makes no express or implied representations or warranties as to merchantability, fitness, condition or suitability of said improvements, landscaping, alterations, fixtures, equipment or materials. Effective upon the Owner's receipt of written notice of completion, the Owner hereby accepts and agrees to take ownership of the improvements, landscaping, alterations, fixtures, equipment or materials installed in, on or below the Property by Beazer.

7. **No Liens.** Neither Beazer, nor any of the Beazer Parties, shall file or maintain any mechanic's lien, materialman's lien, or any other type lien or claim against the Property or any improvements located thereon as the result of activities undertaken, improvements made, or any labor, material, equipment, machinery, or other service or property of any kind furnished in connection with the Activities. If any lien or claim of lien is filed or recorded on or against the Property arising from the Activities undertaken by Beazer or the Beazer Parties as a result of this Agreement, Beazer shall cause said lien or claim of lien to be removed from the Property within thirty (30) days of receipt of notice of the same.

8. **Governmental Approvals and Permits.** Beazer and/or the Beazer Parties shall procure and maintain, at their sole expense, as valid and current, all governmental licenses, authorizations, approvals, and/or permits that are necessary for, required for, incidental to, or appropriate to performance of the Activities. Owner shall provide reasonable assistance to Beazer in the exercise of Beazer's obligations under this Paragraph 8, including, without limitation, agreeing to execute, to the extent required, any application or consent as Property owner and agreeing to provide reasonably available information regarding the Property upon the request of Beazer.

9. **Insurance Required.** With respect to any Activities to be performed at or on the Property, Beazer and/or the Beazer Parties, as applicable and at their own expense, shall procure and maintain not less than the following insurance coverage: (a) workmen's compensation, including occupational disease coverage, in accordance with all applicable statutory and/or regulatory requirements; (b) employer's liability insurance with a minimum limit of \$500,000 per incident and \$1,000,000 in the aggregate; (c) comprehensive general liability insurance including public liability and property damage coverages, including coverage with respect to sudden and accidental occurrences, with a minimum limit applicable to bodily injury liability and property damage liability of not less than \$2,000,000 combined single limit per occurrence; (d) errors and omissions (professional liability) insurance with a minimum limit of \$2,000,000 per occurrence; (e) comprehensive automobile liability insurance covering owned, non-owned and hired motor vehicles against claims for death, bodily injury, and/or property damage, having

a combined single limit of not less than \$2,000,000 per occurrence; and (f) environmental impairment (pollution liability) insurance covering sudden and non-sudden occurrences with minimum limits of liability not less than \$2,000,000 per occurrence and annual aggregate.

10. Indemnification. Except to the extent caused, in whole or in part, by any act or omission of Owner or any tenant or lessee of Owner, Beazer shall be solely responsible for and shall indemnify, defend, and hold harmless Owner and, if applicable, each of Owner's officers, directors, employees, agents, attorneys, parents, subsidiaries, affiliates, shareholders, successors and assigns, from and against any and all claims, suits, damages, losses, liens, penalties, fines, judgments, costs, and all other liabilities whatsoever, including reasonable attorneys' fees, for or on account of injuries to or death of any person and/or damage to any real or personal property (except real or personal property to be removed as part of the Activities described in Exhibits A and B hereto) in any way sustained or alleged to have been sustained, directly or indirectly, by reason of or in connection with: (a) the performance or execution of the Activities by Beazer or any Beazer Parties; (b) the presence of Beazer or any Beazer Parties on the Property in connection with the Activities; (c) any acts or omissions of Beazer or any Beazer Parties in connection with the Activities; or (d) the breach of this Agreement by Beazer or any Beazer Parties.

11. Severability/Choice of Law/Venue. If any provision of this Agreement is held to be invalid, void, or unenforceable, such provision shall be deemed stricken as if it had never been included in this Agreement; the remaining provisions of this Agreement shall in no way be affected or impaired, and such remaining provisions shall continue in full force and effect and shall be read to be workable to the fullest extent possible in the absence of the stricken provision. Interpretation of, and performance under, this Agreement, shall be governed by the laws of Florida without giving effect to its choice of law provisions. The venue for any litigation involving this Agreement or the rights of the Parties hereunder shall be in Alachua County, Florida.

12. Complete Agreement/Amendment. This Agreement embodies the entire agreement and understanding between the Parties as to the subject matter of this Agreement, and any and all prior or contemporaneous proposals, negotiations, agreements, commitments, and representations, whether oral or written, are merged herein. This Agreement cannot be amended or modified except by means of a written document executed by both Parties subsequent to the Effective Date.

13. Performance and Waiver. The failure of either Party to insist on strict performance of any or all of the terms, conditions, rights, or obligations of this Agreement, or to exercise any of said Party's rights under this Agreement, shall not constitute a waiver or relinquishment of any type or nature regarding any right afforded said Party under this Agreement. No waiver by a Party of any breach or default hereunder by the other Party shall be considered valid, unless made in writing and signed by the waiving Party, and no such waiver shall be deemed a waiver of any subsequent breach or default by the other Party of the same or similar nature.

14. **Binding Effect/Survival of Terms.** The respective rights and obligations of this Agreement shall bind and inure to the benefit of the Parties, as well as to their respective legal representatives, heirs, successors, and assigns. The various obligations, covenants, and indemnities made by each Party under this Agreement shall survive, and continue to be enforceable after, termination of this Agreement for a term of one (1) year.

15. **Headings.** The descriptive headings of the several paragraphs contained in this Agreement are inserted for convenience only and shall not control or affect the meaning or construction of any provisions contained herein.

16. **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all such counterparts together shall constitute one and the same instrument. It shall not be necessary that any counterpart be signed by both Parties. Each Party represents to the other Party that their undersigned representatives have authority, and are duly authorized, to execute this Agreement. The transmission of an executed copy of this Agreement, or any document referenced or incorporated in this Agreement, or the signature pages hereof or thereof, by facsimile, telecopy, or other method of electronic transmission shall be treated in all manner and respects as the delivery of an original counterpart of this Agreement.

IN WITNESS WHEREOF, the Owner executing below and Beazer have duly executed this Access Agreement in counterparts as set forth below:

ATTEST:

By: Donna Lee Kopach

Name: DONNA LEE KOPACH

Title: ASSISTANT SECRETARY

BEAZER EAST, INC.

By: [Signature]

Name: Charles E. McChesney II

Title: Vice President & Secretary

WITNESSED

By: Barbara E. duPont

Name: Barbara E. duPont

Title: friend / colleague

OWNER(S)

Karen C. Scott
(Print Owner name)

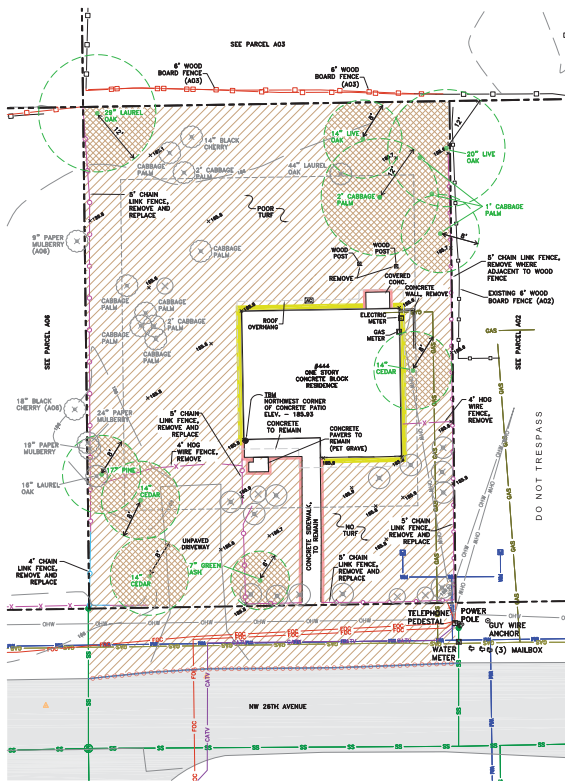
By: Karen C. Scott 9/29/14

Name: _____

Title: home owner

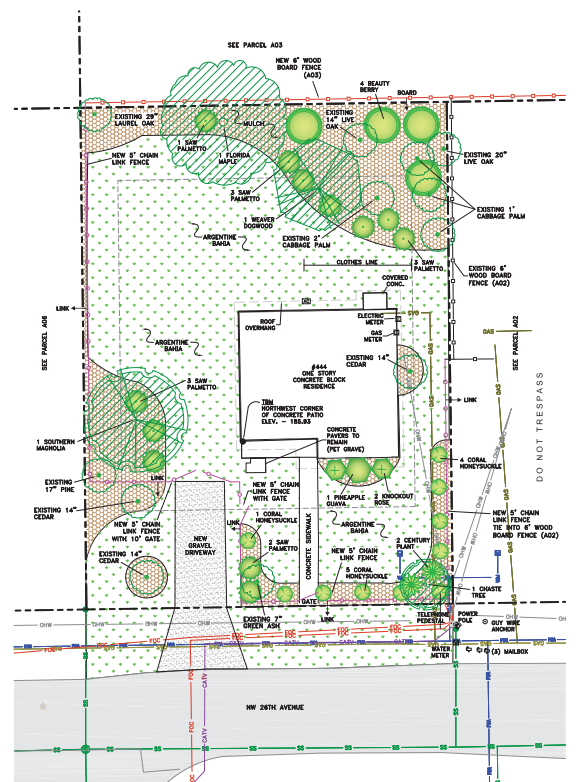
EXHIBIT A

**Map and Design Plan of the “Property” and the “Activities” subject to the Access
Agreement between KAREN C SCOTT and Beazer East, Inc.**



EXISTING CONDITIONS AND SOIL REMOVAL PLAN

- LEGEND**
- PROPERTY LINE
 - BRUSH OR BARK TOPSOIL TO ROOT MAT. REPLACE IMMEDIATELY. AREA = 1,640 S.F.
 - 1 FT SOIL REMOVAL AREA AREA = 5,670 S.F.
 - EXISTING 4\"/>
- LIMITED EXCAVATION WITHIN 2 FT OF PERMANENT BUILDINGS**
- LIMITED EXCAVATION WITHIN 1 FT OF PAVEMENT
 - SHRUB TO BE REMOVED
 - TREE OR SHRUB TO BE REMOVED
 - TEMPORARY BENCHMARK
 - PRE-CONSTRUCTION SURVEY DATA
 - TOPOGRAPHIC CONTOUR
- TREE TO BE PROTECTED WITH PROTECTION RADIUS AND TREE PROTECTION AREA**
- OVERHEAD UTILITY LINES
 - UNDERGROUND SANITARY SEWER (APPROX.)
 - UNDERGROUND WATER MAIN (APPROX.)
 - UNDERGROUND NATURAL GAS (APPROX.)
 - UNDERGROUND TELEPHONE (APPROX.)
 - UNDERGROUND ELECTRIC (APPROX.)
 - UNDERGROUND CABLE TV (APPROX.)
- UTILITIES**
- OVERHEAD UTILITY LINES
 - UNDERGROUND SANITARY SEWER (APPROX.)
 - UNDERGROUND WATER MAIN (APPROX.)
 - UNDERGROUND NATURAL GAS (APPROX.)
 - UNDERGROUND TELEPHONE (APPROX.)
 - UNDERGROUND ELECTRIC (APPROX.)
 - UNDERGROUND CABLE TV (APPROX.)
- DO NOT TRESPASS**
- SCALE IN FEET**
- 0 10 20



RESTORATION PLAN

- LEGEND**
- GRAVEL AREA = 450 S.F.
 - ARGENTINE BAHA SOD
 - PIKE BARK MULCH
 - PROPERTY LINE
 - NEW 5\"/>
- EXISTING TREE**
- NEW TREE
 - NEW TREE OR SHRUB
- UTILITIES**
- OVERHEAD UTILITY LINES
 - UNDERGROUND SANITARY SEWER (APPROX.)
 - UNDERGROUND WATER MAIN (APPROX.)
 - UNDERGROUND NATURAL GAS (APPROX.)
 - UNDERGROUND TELEPHONE (APPROX.)
 - UNDERGROUND ELECTRIC (APPROX.)
 - UNDERGROUND CABLE TV (APPROX.)
- SCALE IN FEET**
- 0 10 20

ISSUED FOR CONSTRUCTION

DATE	REVISION
8-18-14	OWNER REQUESTS

FILE: A04 SOIL RESTORATION PLAN

LOCATION: 444 NW 26th Avenue, Gainesville, Florida

APPROVED: [Signature] DATE: 8-18-14

DRAWN: [Signature] DATE: 8-18-14

CHECKED: [Signature] DATE: 8-18-14

PROJECT: 177-5091319

SCALE: 1" = 10'

EXHIBIT B

General Description of Nature and Timing of Activities

In general, restoration work for the subject Property will include the removal of the top 12 inches of soil and the replacement with clean soil and new landscaping. Soil beneath permanent structures and beneath paving will not be removed. In order to preserve the canopy and the character of the neighborhood, certain trees may be saved and will have protection zones established around them (see attached "Property Restoration Plan" drawing, Exhibit A); topsoil in the protection zones will be carefully removed down to the root mat and replaced with clean soil.

The following specific activities are expected to occur during restoration, generally in the order listed:

1. Underground utilities will be located and marked on the ground. In some cases, the post-restoration planting plan may need to be adjusted to avoid planting trees within the required setback distances from utility lines (7.5 to 10 feet, depending on the utility). Any such changes will be provided to the Owner and the Owner will have the opportunity to discuss the changes with Beazer's representative prior to landscape installation.
2. Fences and other outdoor materials that are scheduled for removal will be removed; the removed material may be disposed of or saved for reuse, depending on the Property Restoration Plan. Temporary construction fencing will be installed prior to soil excavation.
3. Trees that are slated for removal will be removed and taken off property. Tree stumps will be ground in place to an approximate depth of 12 inches, with the grindings remaining for removal with the surrounding soil.
4. Depending on the property location and the project implementation sequence, there may be a period of a few weeks between tree removal activities and soil excavation activities. All attempts will be made to minimize this time lag.
5. Excavation areas and tree protection areas will be marked on the ground. Dust monitoring and dust control measures will begin. This is the start of the period that residents are suggested to temporarily relocate.
6. Soil excavation will be conducted by excavators and with hand tools. In general, the excavation depth will be at least 12 inches. In tree-protection areas, topsoil will be removed to the root mat (if shallower than 12 inches) and clean soil will be placed immediately over the root mat. Less than 12 inches may also be removed within 2 feet of structures, within 1 foot of pavement, and within 1 foot of shallow underground utilities (less than 3 feet deep).

7. The removed soil will be hauled to a designated management area in the southeast portion of the Former Koppers Facility (Beazer property).
8. Clean soil will be brought to the parcel and used to backfill the yard to the original (pre-excavation) elevation. If called for in the Property Restoration Plan, gravel will also be installed (e.g. for a driveway). Minor adjustments in elevation may be made to ensure proper stormwater runoff.
9. After excavation and backfill is complete, dust monitoring and dust control measures will be discontinued for the subject Property. Residents who have temporarily relocated should now return.
10. There may be a period of a few weeks between the completion of the soil replacement and the initiation of landscape installation activities. Again, all attempts will be made to minimize this time lag.
11. The replacement landscape plantings will be installed per the Property Restoration Plan, including (as applicable) turf, mulch, other ground covering, new shrubs, and new trees.
12. Fences and other non-vegetative materials slated for the restored landscape will be installed in accordance with the Property Restoration Plan.
13. A temporary water line for landscape irrigation will be installed. The water line will run from the Beazer property; Beazer will be responsible for paying for this water.
14. For 30 days after landscape installation, Beazer's contractor will irrigate the new landscaping as needed.
15. Upon completion of 30 day period after landscape installation, Beazer will provide a written notice of completion to the Owner.
16. The water line will remain in place for at least 180 days after landscape installation for the parcel Owner to use for landscape irrigation (water provided at Beazer's expense).
17. The temporary water line will be removed.

Soil removal and restoration is expected to occur in geographic blocks of several parcels each. Residents will be encouraged to make arrangements to stay elsewhere during the period of soil removal and replacement (activities 6 through 8 in the list above), which is expected to take approximately 1 week for a block. A stipend at the government rate for hotel and meals will be provided. The stipend will also cover the cost of a house cleaning (maid service) that includes vacuuming of floors/rugs; dust removal from furniture, shelves, light fixtures, and baseboards; bathroom cleaning; and kitchen cleaning.

Many precautions will be taken during the work to ensure the health and safety of residents and workers. This includes measures to prevent erosion and stormwater runoff and measures to limit generation of dust. Dust monitoring will be conducted throughout the work. Also, if any property is inadvertently damaged during the work, Beazer will repair the damage promptly.

Questions regarding the nature and timing of activities, as well as questions regarding the attached Property Restoration Plan, should be directed to Kate Libby of Tetra Tech at (352) 213-0599 or koppers.cleanup@tetratech.com.

APPENDIX B.

LIST OF IMPLEMENTATION AND OVERSIGHT CONTRACTORS

Subcontractors used by Severson in Gainesville,

Florida 2014

Contractor	Business	Address	Phone Number
Severson Environmental Services, Inc. (Main Office)	General Contractor	2749 Lockport Road, Niagara Falls, NY 14305	716-284-0431
Severson Environmental Services, Inc. (Alternate)		240 Rock Springs Road, Delmont, PA 15626	724-468-1000
All Florida Enterprises	Fencing	PO Box 1320, Newberry, FL 32669	352-472-3550
Andrew's Paving, Inc.	Aggregate/Concrete & Asphalt Installation	6327 NW 132rd Place, Gainesville, FL 32653	386-462-1115
Bobcat of Jacksonville	Equipment Rental	11657 Philips Highway, Jacksonville, FL 32256	904-288-9181
EnviroTek	Environmental Contractor	3007 North 50th Street, Tampa, FL 33619	813-909-0040
Fairbanks Scale	Truck Scale Manufacturer/Installation	821 Locust Street, Kansas City, MO 64106	863-665-3701
Florida Green Keepers, LLC	Landscaping	1401 NW 53rd Ave, Gainesville FL 32609	352-373-4932
Gainesville Police Department, Fiscal and Special Project Department	Traffic Control	413 NW 8th Avenue, PO Box 1250, Gainesville, FL 32601	352-393-7527
Gainesville Regional Utilities	Water Supply/Temporary Meters	301 SE 4th Avenue, Gainesville, FL 32601	352-334-3434
George F. Young, Inc.	Surveyor	1905 South Maine Street, Gainesville, FL 32601	352-378-1444
Neff Rental	Equipment Rental	5955 Phillips Highway, Jacksonville, FL 32216	904-737-3600
SkyFrog Tree Service, LLC	Tree Clearing Contractor	4605 NW 6 th Street/ Suite F, Gainesville, FL 32609	352-727-4330
SkyFrog Landscape (Model Property Only)	Landscaping	8880 SE 71 st Street, Newberry, FL 32669	386-972-1144

T. Disney Trucking	Trucking	PO Box 89459 Tampa, FL 33689	813-443-6258
Tom Jenkins Electrical Service, Inc.	Electrician	8153 SW CR 796, Lake Butler, FL 32054	386-496-8287
United Rentals	Equipment Rental	3540 North East Waldo Road, Gainesville, FL 32609	352-377-1051
US Security Associates, Inc.	Site Security (On/Off Beazer Property)	11330 St. Johns Industrial Parkway, Jacksonville, FL 32246	904-997-1234

Subcontractors used by Tetra Tech, Inc.
in Gainesville, Florida 2014

Contractor	Business	Address	Phone Number
Tetra Tech Inc.	Design and Oversight	1165 Sanctuary Pkwy., Ste. 270 Alpharetta, GA 30009	770-619-9950
Tetra Tech, Inc.	Design and Oversight	8640 Philips Hwy., Ste. 16 Jacksonville, FL 32256	904-636-6125
Tetra Tech, Inc.	Design and Oversight	200 E. Pine Street, Ste. 1000 Orlando, FL 32801	407-480-3916
Cascade Drilling L.P.	Well Abandonment	5785 SW 6th Place, Suite 101-A Ocala, FL 34474	352-237-1995
Cross Environmental Services	Demolition of C03	P.O. Box 1299 Crystal Springs, FL 33524	813-783-1688
Field Data Solutions	Monitoring Equipment and Data Management	301 Brushton Avenue, Suite A Pittsburgh, PA 15221	412-436-2600
George F. Young, Inc.	Surveying, Utility Location, and Oversight Support	1905 South Main Street Gainesville, FL 32601	352-378-1444
GeoTeck Services, LLC	Utility Location	4060 Sparrow Hawk Road Melbourne, FL 32934-8525	321-242-1594
GLE Associates, Inc.	Building Materials Assessment and Sampling During Demolition for C03	4300 West Cypress Street, Ste.400 Tampa, FL 33607	813-241-8350
Kestrel Ecological Services	Arborist Services, Tree Surveys	P.O. Box 12417 Gainesville, FL 32604	352-380-0648
Nobles Consulting Group	Surveying	2844 Pablo Avenue Tallahassee, FL 32308	850-385-1179
Zamia Design	Landscape Design and Inspection	3459 NW 13th Avenue Gainesville, FL 32605	352-373-8220