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Geotechnical, Environmental, and  
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*A Tetra Tech Company*

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Orlando Utilities Commission  
P.O. Box 3193  
Orlando, FL 32802-2723

Attention: Mr. Charles W. Doud, P.E.  
Senior Environmental Engineer

Subject: 2022 Annual Landfill Inspection under Coal Combustion Residuals (CCR) Rule,  
Stanton Energy Center, Orange County, Florida

Gentlemen/Ladies:

As requested by Orlando Utilities Commission (OUC), Ardaman & Associates, Inc. – a Tetra Tech Company (TT-AAI) has completed the 2022 annual landfill inspection at the Stanton Energy Center on April 4, 2022. The objectives of our inspection were to satisfy the requirements in 40 CFR §257.84 of the Coal Combustion Residuals (CCR) Rule promulgated by the United States Environmental Protection Agency (EPA) on April 17, 2015, and to identify any items that need immediate corrective actions or long-term attention. In association with the landfill inspection, TT-AAI has reviewed the CCR Rule requirements, historical information in our project files, and relevant landfill operation data provided by OUC.

The focus of our annual inspection was on the lined Cell 1 of the horizontal expansion of the closed 90-acre original landfill, which is also referred to as the original combustion waste storage area (original CWSA). At the time of our inspection, Cell 1 was the only active CCR disposal unit at the Stanton Energy Center. Cell 2, which has been constructed immediately north of Cell 1 but has not yet been activated, was also included in the annual inspection. Although the closed original CWSA and its closed vertical expansion on top are exempt from the CCR Rule requirements, these landfill units as well as other facilities were also inspected insofar as they may affect the operation and safety of Cells 1 and 2.

The 2022 inspection constituted the seventh annual inspection since waste materials were first placed into Cell 1 on May 28, 2015. The previous (i.e., the sixth) annual inspection was documented in a TT-AAI report titled “2021 Landfill Inspection under Coal Combustion Residuals (CCR) Rule, Orlando Utilities Commission, Stanton Energy Center, Orange County, Florida,” dated May 26, 2021. This report provides some background information on the history and design of Cells 1 and 2, and documents our findings and recommendations from the seventh annual landfill inspection and associated data review required by the CCR Rule.

**Inspection Requirements under CCR Rule**

As stated in 40 CFR §257.84(b)(1), the goal of the annual inspections is “... *to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards.*” The CCR Rule further

stated that the annual inspections must be performed by a qualified professional engineer and must, at a minimum, include the following efforts:

- (i) *A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record (e.g., the results of inspections by a qualified person, and results of previous annual inspections); and*
- (ii) *A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit.*

Per 40 CFR §257.84(b)(2), the qualified professional engineer must prepare an inspection report to address the following items:

- (i) *Any changes in geometry of the structure since the previous annual inspection;*
- (ii) *The approximate volume of CCR contained in the unit at the time of the inspection;*
- (iii) *Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit; and*
- (iv) *Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.*

According to the CCR Rule, a qualified professional engineer is defined as “*an individual who is licensed by a state as a Professional Engineer to practice one or more disciplines of engineering and who is qualified by education, technical knowledge and experience to make the specific technical certifications required under this subpart. Professional engineers making these certifications must be currently licensed in the state where the CCR unit(s) is located.*”

### **Waste Disposal Area**

The Stanton Energy Center is in southeastern Orange County, Florida, in the vicinity of the Econlockhatchee River, about 12 miles southeast of downtown Orlando, and 6 miles northeast of Orlando International Airport. The site is located within Sections 13, 14, 23, and 24 of Township 23 South, Range 31 East, and Sections 7, 8, and 19 of Township 23 South, Range 32 East. The address of the Stanton Energy Center is 5100 South Alafaya Trail, Orlando, Florida 32831. The entire facility encompasses an area of approximately 3,280 acres.

The designated CCR disposal area at the Stanton Energy Center, which is referred to as the Combustion Waste Storage Area (CWSA), is located on the west side of the facility. It occupies an area of approximately 250 acres. Landfilling of waste materials within the entire 250-acre CWSA has occurred within the closed 90-acre original CWSA, the closed vertical expansion on top of the original CWSA, and the active Cell 1 of the horizontal expansion to the west of the

original CWSA. The horizontal expansion consists of the existing Cells 1 and 2 and the future Cell 3.

Cells 1 and 2 each consists of approximately 30 acres of base area and 8 acres of slope area on the west side of the closed original CWSA (i.e., the horizontal expansion, including Cells 1 and 2, piggyback or will piggyback on the west slope of the closed original CWSA). Cell 2 is located immediately north of Cell 1 and will piggyback on the north slope of Cell 1 (i.e., Cells 1 and 2 will eventually be combined). The bottom liner system for Cell 2 was connected to the bottom liner system for Cell 1 to form a continuous bottom liner system for the two landfill cells. An aerial photograph dated November 2021 that shows the layout of the entire 250-acre CWSA, which includes the 90-acre footprint area of the closed original CWSA, the closed vertical expansion, and Cells 1 and 2 of the horizontal expansion, is presented in Figure 1. Close-up aerial photographs of Cell 1 and Cell 2 are further depicted in Figures 2 and 3, respectively.

Coal combustion residuals and other power plant wastes have been landfilled on-site since the start of commercial operation of the first power generating unit (i.e., Unit 1) in 1987. The 90-acre original CWSA and its vertical expansion ceased to receive CCR wastes on August 28, 2015, corresponding to 52 days before the October 19, 2015 deadline for a CCR landfill to be exempt from the CCR rule requirements. Closure of the 90-acre original CWSA and vertical expansion was completed on March 11, 2016, corresponding to 196 days after the landfill units ceased to receive CCR wastes. The Construction Completion Report for the closure was submitted by TT-AAI on March 12, 2016 and was approved by the Florida Department of Environmental Protection (FDEP) in a letter dated April 18, 2016.

From October 19, 2015 (i.e., the effective date of the CCR Rule) and through at least April 4, 2022 (i.e., the date of the 2022 inspection), Cell 1 was the only active CCR landfill unit at the Stanton Energy Center. Cell 1 was previously projected to reach its maximum storage capacity in early 2023.

### **Relevant Information**

In association with the 2022 landfill inspection, TT-AAI has reviewed the following relevant information in our project files or provided by OUC:

- Conditions of Certification for the Stanton Energy Center (PA 81-14M), dated August 30, 2017.
- Design and construction documents for Cells 1 and 2.
- CCR Fugitive Dust Control Plan for the CCR disposal area, prepared by OUC and dated October 2, 2015.
- First Update of Run-on and Run-off Control System Plan for Cell 1, prepared by TT-AAI and dated October 15, 2021.
- Conceptual Closure Plan for Cell 1, prepared by TT-AAI and dated October 14, 2016.
- Landfill Operation and Maintenance Plan for Cell 1, prepared by TT-AAI and dated February 3, 2017.

- Demonstration for Compliance with “Unstable Areas” Requirement in CCR Rule for Cell 1, prepared by TT-AAI and dated January 11, 2019.
- 2021 Annual Landfill Inspection Report for Cell 1, prepared by TT-AAI and dated May 26, 2021.
- Topographic surveys performed by MIKON on September 30, 2020 and September 14, 2021.
- Topographic surveys completed by Wood Environment & Infrastructure Solutions, Inc. (Wood) on April 23, 2021 and January 24, 2022.
- On-site rainfall gauge records for 2021 and from January 1 through April 30 of 2022.
- Daily dust logs for 2021.
- Monthly waste quantity records for 2021.
- Weekly landfill inspection reports for 2021.

### **Cell 1 Design**

Because Cell 1 was designed and constructed prior to the effective date (i.e., October 19, 2015) of the CCR Rule, it was not subject to the design criteria for new landfills contained in 40 CFR §257.70. However, it was designed to comply with applicable requirements of Chapter 62-701 of the Florida Administrative Code (F.A.C.), which governs the design, construction, and operation of solid waste management facilities in Florida.

The bottom liner and leachate collection system for the approximately 30-acre base area of Cell 1 was designed to have the following components in descending order:

- A 2-foot thick layer of drainage sand with a minimum saturated hydraulic conductivity of  $1.0 \times 10^{-4}$  cm/sec to provide protection for the liners and drainage for the leachate.
- A geocomposite to provide conveyance for the leachate and to limit the leachate head on the primary geomembrane liner.
- A 60-mil thick textured HDPE geomembrane liner to serve as the primary leakage barrier.
- A geocomposite or geonet to detect and convey leachate that passes through any defects in the primary geomembrane liner and to limit the leachate head on the secondary geomembrane liner.
- A 60-mil thick textured HDPE geomembrane liner to serve as the secondary leakage barrier.
- A 6-inch thick layer of compacted soil subbase with a maximum saturated hydraulic conductivity of  $1.0 \times 10^{-5}$  cm/sec to preclude leakage of leachate through any defects in the secondary geomembrane liner.

The bottom liner and leachate collection system for the approximately 8-acre slope area on the east side of Cell 1 (i.e., the west slope of the original landfill) was designed to have the following components in descending order:

- A 2-foot thick layer of drainage sand with a minimum saturated hydraulic conductivity of  $1.0 \times 10^{-4}$  cm/sec to provide protection for the liners and drainage for the leachate.
- A geocomposite to provide conveyance for the leachate and to limit the leachate head on the slope liner.
- A 60-mil thick textured HDPE geomembrane liner to serve as the leakage barrier.

The bottom liner and leachate collection system for Cell 1 was constructed above a prepared soil subgrade. The objectives of the above designs were to preclude leakage of leachate from Cell 1 into groundwater and to limit the leachate head above the liner system.

### **Cell 2 Design**

Cell 2 was designed and constructed after the effective date (i.e., October 19, 2015) of the CCR Rule, it is subject to the design criteria for new landfills contained in 40 CFR §257.70. Cell 2 was designed with a double-composite liner system that comprises two components, with the top component consisting of a single HDPE geomembrane liner and the bottom component consisting of a composite liner with an HDPE geomembrane liner in direct and uniform contact on top of a 12-inch thick compacted soil liner. In addition, the low point (i.e., the bottom elevation of the compacted soil liner beneath the leachate collection sump) of each of the four subcells in Cell 2 was placed above the seasonal high groundwater elevation. The Cell 2 bottom liner system was connected to the Cell 1 bottom liner system along the north containment dike of Cell 1.

The bottom liner system for Cell 2 was designed to have the following key components in descending order:

- A 2-foot thick layer of drainage sand with a minimum saturated hydraulic conductivity of  $1.0 \times 10^{-4}$  cm/sec to provide protection for the liners and drainage for the leachate.
- A geocomposite to provide conveyance for the leachate and to limit the leachate head on top of the primary liner.
- A 60-mil thick textured HDPE geomembrane liner to serve as the primary leakage barrier.
- A geocomposite or geonet to detect and convey any leachate that passes through any defects in the primary HDPE liner and to limit the leachate head on top of the secondary liner.
- A composite liner with a 60-mil HDPE geomembrane liner underlain by a 12-inch thick compacted soil liner with a maximum saturated hydraulic conductivity of  $1.0 \times 10^{-7}$  cm/sec.
- A prepared liner subgrade that is free of deleterious materials and meets the compaction requirements in the technical specifications.

The liner system on the west slope of the original CWSA was designed to have the following key components in descending order:

- A 2-foot thick layer of drainage sand with a minimum saturated hydraulic conductivity of  $1.0 \times 10^{-4}$  cm/sec to provide protection for the liners and drainage for the leachate.
- A double-sided geocomposite to provide conveyance for the leachate and to limit the leachate head on top of the slope liner.
- A 60-mil thick textured HDPE geomembrane liner to serve as the leakage barrier.
- A minimum 6-inch thick soil bedding layer to provide support for the HDPE geomembrane liner and separation from the underlying waste materials.

The objectives of the above designs were to preclude leakage of leachate from Cell 2 into groundwater and to limit the leachate head above the bottom liner systems.

### **Waste Materials**

Fly ash and flue gas desulfurization (FGD) sludge are the predominant coal combustion wastes generated at the Stanton Energy Center. In addition, bottom ash and brine concentrator/crystallizer solids (BCCS) are also generated in significant quantities. The quantities and characteristics of fly ash, FGD sludge, and bottom ash may vary considerably, depending on energy production, and the ash and sulfur contents of the coal used for power generation.

Typically, the fly ash from Units 1 and 2 is sold, and fly ash containing 15 to 25 percent lime purchased from outside fluidized bed facilities is imported for mixing with the FGD sludge generated on-site. The residual lime in the imported fly ash catalyzes a pozzolanic reaction which stabilizes the waste material and causes it to set after deposition in the on-site landfill. This processed waste material, which is referred to as "Promat", comprises the primary coal combustion waste material disposed in the on-site landfill. When needed, fly ash generated on-site and free lime materials are also utilized.

The bottom ash is also sold in accordance with market demand. Any unsold bottom ash and the BCCS are disposed of in the on-site landfill. The on-site landfill also receives relatively small quantities of miscellaneous power plant wastes as well as construction and demolition debris generated at the Stanton Energy Center, sediments from the lined process water ponds at the facility, and minor quantities of wastes from other OUC facilities.

### **Topographic Surveys and Waste Quantities**

Since activation of Cell 1 in 2015, OUC has retained different surveyors to perform topographic surveys of the waste surface periodically to allow OUC to keep track of landfill geometry, waste volumes, and remaining storage life of the landfill cell. The following surveys were reviewed by TT-AAI as part of the 2022 annual landfill inspection under the CCR Rule:

- MIKON's surveys performed on September 30, 2020 and September 14, 2021.
- Wood's surveys completed on April 23, 2021 and January 24, 2022.

The elevations in MIKON's survey were referenced to the National Geodetic Vertical Datum of 1929 (NGVD29), whereas the elevations in Wood's surveys were referenced to the North American Vertical Datum of 1988 (NAVD88). Results of the topographic surveys by MIKON, and the topographic and waste quantity surveys by Wood are included in Appendices 1 and 2, respectively.

The most recent survey for Cell 1 was completed by Wood on January 24, 2022 and presented in Figure 4. As shown, the waste materials that were deposited against the west slope of the 90-acre closed original CWSA had reached typical elevations of +160 to +162 feet (NAVD88) and a maximum elevation of +172 feet (NAVD88). The waste surface inside Cell 1 had reached a maximum elevation slightly above +166 feet (NAVD88). Cell 1 was designed to have a maximum elevation of +175 feet (NAVD88), corresponding to a height of approximately 90 feet above natural grade. Cell 1 was designed to provide a waste storage capacity of approximately 3.1 million cubic yards.

The survey by MIKON on September 30, 2020 showed approximately 2.04 million cubic yards of consumed airspace in Cell 1. Based on the topographic survey performed by MIKON on September 14, 2021, the consumed airspace in Cell 1 increased to approximately 2.43 million cubic yards, with a remaining airspace of approximately 0.67 million cubic yards. The average airspace consumption rate between MIKON's September 30, 2020 and September 14, 2021 surveys was approximately 0.41 million cubic yards per year.

A table prepared by Wood that shows the waste volumes revealed by various topographic surveys since January 2015 is included in Appendix 2. The data indicated a consumed airspace of approximately 2.49 million cubic yards and a remaining airspace of 0.47 million cubic yards in Cell 1 on January 24, 2022 (i.e., the most recent topographic survey for Cell 1), for an estimated total waste storage capacity of approximately 3.0 million cubic yards. The average airspace consumption rate between Wood's April 23, 2021 and January 24, 2022 surveys was approximately 0.36 million cubic yards per year, which is less than the airspace consumption rate (0.41 million cubic yards per year) obtained by MIKON's surveys performed on September 30, 2020 and September 14, 2021. The small difference in airspace consumption rates could be attributed to the timing of the surveys and possibly variations in operation of the coal units for the two different periods.

In summary, based on MIKON's topographic survey on September 14, 2021, the consumed airspace in Cell 1 was approximately 2.43 million cubic yards and the remaining airspace was approximately 0.67 million cubic yards. Based on most recent survey data obtained by Wood on January 24, 2022, the consumed airspace was approximately 2.49 million cubic yards and the remaining airspace was approximately 0.47 million cubic yards. The overall average airspace consumption rate between May 28, 2015 and September 14, 2021 (i.e., the date of MIKON's latest survey) was estimated to be 0.4 million cubic yards per year. The survey data obtained by Wood on April 23, 2021 and January 24, 2022 also showed the latest average airspace consumption rate between the two survey dates to be approximately 0.4 million cubic yards.

Considering an average airspace consumption rate of 0.4 million cubic yards, the remaining airspace of Cell 1 will be depleted in approximately 1.18 years from January 24, 2022 (i.e., the most recent topographic survey for Cell 1). Therefore, Cell 1 is projected to reach its maximum storage capacity in March 2023. However, OUC should be mindful that the wastes generation rate and the projected remaining storage life in Cell 1 could vary, depending on energy production, facility maintenance activities, and the ash and sulfur contents of the coal used for power generation.

According to the waste records provided by OUC, approximately 1.89 million dry tons of ProMat were disposed of in Cell 1 between May 28, 2015 (i.e., the date when wastes were first placed inside Cell 1) and the end of 2021. Considering an average dry density of 72 lb/ft<sup>3</sup>, the total volume of ProMat in Cell 1 was computed to be approximately 1.95 million cubic yards at the end of 2021 and was projected to be approximately 1.97 million cubic yards on January 24, 2022 (i.e., the most recent topographic survey for Cell 1). Accordingly, the total volume of miscellaneous wastes that was disposed of in Cell 1 between May 28, 2015 and January 24, 2022 was back-calculated to be 0.52 million cubic yards, corresponding to an overall average miscellaneous wastes deposition rate of approximately 78,000 cubic yards per year.

### **Fugitive Dust Control**

A CCR Fugitive Dust Control Plan for the Stanton Energy Center was completed by OUC on October 2, 2015. The plan stipulates CCR fugitive dust control measures, which include spraying water, sweeping roadways, restricting vehicle travel speed, etc., to minimize waste materials from becoming airborne. It also describes procedures to log citizen complaints and to assess the effectiveness of the plan. Furthermore, the CCR Fugitive Dust Control Plan requires the outside contractor retained by OUC for waste processing and landfill operation to prepare daily logs to document any observed fugitive dust emissions and, if needed, to implement any corrective measures following the observations.

A summary of the daily logs that relate to mitigation measures for fugitive dust emissions for 2021 is included in Appendix 3. The daily logs indicated that water was applied proactively to the landfill and roadways whenever a fugitive dust release was observed, and that there were no instances in which dust was observed but corrective measures were not implemented. If needed, sweeper truck was used on the roadways when dust was observed.

Based on a review of the daily logs and observations on the date of our site visit, it is our professional opinion that no changes to the CCR Fugitive Dust Control Plan and fugitive dust control measures are necessary. Nevertheless, OUC should continue to monitor any fugitive dust emissions caused by generation and disposal of CCR wastes and assess the effectiveness of any fugitive dust control measures.

### **On-Site Rainfall**

In 2021, a total of 46.75 inches of rainfall was recorded by the rain gauge installed near the Makeup Water Pond, which is located on the east side of the Stanton Energy Center. The 2021 rainfall was 4.70 inches below the annual rainfall of 51.45 inches in a normal year, based on historical rainfall data documented at the nearby Orlando International Airport Climatological Station for the 30-year period between 1991 and 2020. The 2021 annual rainfall recorded at Orlando International Airport was 46.19 inches, which is consistent with the total rainfall recorded by the rain gauge near the Makeup Water Pond.

As indicated previously, our visual inspection of Cell 1 was performed on April 4, 2022. The rain gauge recorded total monthly rainfalls of 1.23, 0.56, and 8.43 inches in January, February, and March of 2022, respectively, with a total rainfall of 10.22 inches. The total normal year rainfall for these three months at the nearby Orlando International Airport Climatological Station was documented to be 7.55 inches. Accordingly, the on-site rainfall from January 1 through March 31, 2022 was approximately 2.7 inches above normal. No rain occurred at the site on April 1, 3,

or 4, 2022, but 1.10 and 1.02 inches of rainfall were recorded on March 31, 2022 (i.e., 4 days before our site visit) and April 2, 2022 (i.e., 2 days before our site visit), respectively.

### **Landfill Leachate**

Separate pumps and flow totalizers were installed for the leachate collection and leak detection systems in each of the four subcells (i.e., a total of eight pumps and flow totalizers) for Cell 1. Similar pumping and metering systems were also provided for the leachate collection and leak detection systems in each of the four subcells for Cell 2.

As noted in the previous inspection report, the leachate pumping system for Cell 1 had become unreliable over the years and was not functioning properly for most of 2020 and part of 2021. OUC decided to replace the entire leachate pumping system for Cell 1 as part of Cell 2 construction. Therefore, leachate flow readings were not taken consistently in 2021. When needed, OUC employed auxiliary diesel pumps to remove leachate from Cell 1 and discharge it through a forcemain to the CWSA Runoff Pond located east of the entire 250-acre CWSA.

### **Weekly Inspections**

An employee of Boral CM Services (the outside contractor retained by OUC for waste processing and landfill operation) inspected Cell 1 weekly in 2021. The weekly inspections covered the interior and exterior dike slopes, leachate collection and leak detection systems, water levels in Cell 1, drainage control structures, and wet detention pond. The inspections also included the control panels and flow totalizers for the leak detection pumps and the underdrain pumps for the CWSA Runoff Pond, which receives leachate from Cell 1.

Summaries of the weekly inspection reports for 2021, as provided to us by OUC, are included in Appendix 4. The following prominent items were noted from our review of the weekly inspection reports:

- No significant erosion or washouts of the interior and exterior slopes of the containment and perimeter dikes around Cell 1 were observed.
- Because of supply chain issues associated with the pandemic, the leachate pumping systems for Cell 1 were inoperable for most of 2021 until November when the system was replaced.
- Until the leachate pumping systems for Cell 1 was replaced and became operable, the contact stormwater runoff was removed using auxiliary diesel pumps and discharged directly into the CWSA Runoff Pond.
- The pumping system for Cell 1 resumed normal operation in December.
- All pump stations for the CWSA Runoff Pond were out of service for upgrading until the week of May 10.
- The CWSA Runoff Pond pump stations were operational for most of the rest of 2021.
- The inlet and outlet structures of the wet detention pond were in good conditions with minimal encroachment by vegetation.

### **Annual Inspection**

The seventh annual inspection of the CCR disposal area was conducted on April 4, 2022 by Messrs. Francis K. Cheung, P.E., and Jeyisanker Mathiyaparanam, P.E., of TT-AAI to observe the conditions of Cells 1 and 2 as well as the conditions of the closed original CWSA, the closed vertical expansion, and other facilities (e.g., haul roads for transport of waste materials) that support landfill operation. Our inspection was conducted on foot between 3 pm and 5 pm. At the time of our site visit, the weather was partly cloudy with an air temperature of approximately 79°F. There was no rain during our inspection, although 1.10 and 1.02 inches of rainfall was recorded on March 31, 2022 (i.e., 4 days before our site visit) and April 2, 2022 (i.e., 2 days before our site visit), respectively. We did not observe any significant standing water or encounter any obvious wet areas from rainfall during our inspection.

We began the landfill inspection by observing Cells 1 and 2 from the top of the closed vertical expansion, at an elevation of approximately +175 feet (NAVD88). The waste materials that had been deposited on the lined slope area of Cell 1 (i.e., the west slope of the closed 90-acre original CWSA) were observed to be above the bench along the toe of the closed vertical expansion, at an elevation of approximately +150 feet (NAVD88). The waste surface above the lined base area of Cell 1 was observed to be highest in the central part.

After observing the general conditions of Cells 1 and 2 from the top of the closed vertical expansion, we walked down the slope to the toe of Cell 1 at the southeastern corner (i.e., the toe of the closed 90-acre original CWSA at the southwestern corner) and observed the waste limit along the southern boundary of the slope area of Cell 1. From there, we headed clockwise along the south and west sides of Cell 1 to its northwestern corner, then towards the north to Cell 2, and then towards the east along the containment dike between Cells 1 and 2 to the access ramp near the northeastern corner of Cell 1. After inspection of the landfill cells, we proceeded to inspect the CWSA Runoff Pond and other facilities.

During our site visit, several Caterpillar® articulated dump trucks were transporting waste materials into Cell 1, and one Caterpillar® D6N dozer was placing waste materials on top of the landfill. The dump trucks were using the West Haul Road, which runs along the west side of the closed original 90-acre CWSA and the east side of Cell 2, to enter and exit Cell 1 through the access ramp at the south end of the West Haul Road and near the northeastern corner of Cell 1. Cell 1 can no longer be accessed via the East Haul Road near the southeastern corner because the access ramp has been filled in to form the south slope of the waste mound. At the time of our site visit, waste materials were being placed on top of the landfill near the northwestern corner. While at the site, we observed dust trails behind the dump trucks traveling on the limerock road, but the limerock dust did not extend beyond the West Haul Road or above the dump trucks and was well inside the designated waste disposal boundary.

Our observations indicated that, except in the northern part of the slope area of Cell 1, the entire lined base and slope areas of Cell 1 and the lined inside slope of the containment dike had been covered with waste materials. Along the southern boundary of the slope area of Cell 1 that adjoins the closed 90-acre original CWSA, all waste materials were placed inside the lined area.

An erosion gully was observed on the west slope of Cell 1 towards the south side, apparently caused by recent rain events that occurred on March 31 and April 2, 2022. Although the erosion gully will not affect landfill stability, it should be repaired as soon as practical. In addition, we observed a small near-vertical cut at the toe of the landfill slope along the west side. Although the

cut will not affect landfill stability, a landfill slope of no steeper than 3H:1V should be maintained from crest to toe.

At the time of our inspection, there were no waste materials inside Cell 2. However, there was shallow standing water in a small area of the southernmost subcell. It appeared that OUC had installed an emergency overflow pipe between Cells 1 and 2 near the northwestern corner of Cell 1. The emergency overflow pipe reportedly had never been used and was dry at the time of our site visit.

The outside slope of the containment dike, and the inside and outside slopes of the perimeter dike, were generally in good conditions except for some areas with sparse grass cover. It appeared that the stormwater runoff ditch between the containment and perimeter dikes was recently de-mucked, and the removed sediments were dumped on the inside slope of the perimeter dike around the southwestern corner of Cell 1. Although these materials on top of the dike slope will not affect dike stability, they should be spread evenly and smoothly on the inside slope of the perimeter dike to avoid concentrated runoff on the dike slope. OUC should continue to monitor the dike slopes and, if erosion is observed, should repair, and then sod or seed the bare areas.

Based on our visual observations, flow should occur freely through the box culverts and in the perimeter stormwater runoff ditch that runs west of Cells 1 and 2 and south of Cell 1. The two inlet structures on the south side of Cell 1, which are connected to pipes draining into the wet detention pond near its northwestern corner, were also in good conditions.

Blinking alarm/warning lights were observed on the sump control panels for Cell 1 and some of the sump control panels for Cell 2. Four trailer-mounted auxiliary diesel pumps were deployed on the crest road of the west containment dike, with the intake placed inside Cell 1 on the west side to ensure that all contact stormwater could be pumped immediately to the CWSA Runoff Pond. At the time of our site, the two pumps located on the north side were pumping, but the other two pumps located on the south side were not operating. The discharge sides of the pumps were connected to a common HDPE discharge pipe, which in turn is connected to the leachate forcemain that discharges into the CWSA Runoff Pond.

Both the East and West Haul Roads were in good conditions, with minimal rutting and depression. The roads were approximately 50 feet wide, which should be sufficient for two-way traffic by articulated dump trucks. No debris or waste materials were observed in the drainage ditches on both sides of the haul roads.

During our site inspection on March 2, 2021, TT-AAI observed three groundwater monitoring or water level observation wells near Cell 1. These three wells are designated MW-A, MW-9R, and MW-10. Each of these wells was provided with a concrete pad and a metal protective casing. MW-A is located near the southeastern corner of Cell 1. MW-10 is located south of Cell 1 and near the northwestern corner of the wet detention pond. MW-9R is located west of and near the southwestern corner of Cell 1. All three wells appeared to be in good conditions without any visible damages.

At the time of our site visit, the outlet of the forcemain that discharges leachate into the south compartment of the CWSA Runoff Pond was submerged below the pond water level and flowing, but the outlet of the forcemain that discharges leachate into the north compartment was above the pond water level without any discharges into the compartment.

Selected photographs taken during our site inspection on April 4, 2022 are included in Appendix 5.

### **Summary and Recommendations**

Below are the summary and recommendations from our 2022 annual landfill inspection under the CCR Rule:

- Except in the northern part of the slope area of Cell 1, the entire lined base and slope areas of Cell 1 and the lined inside slope of the containment dike had been covered with waste materials.
- The waste materials that were deposited in the lined slope area of Cell 1 (i.e., on the west slope of the closed original CWSA and vertical expansion) had reached typical elevations of approximately +160 to +162 feet (NAVD88) and a maximum elevation of +172 feet (NAVD88).
- The waste surface above the lined base area of Cell 1 had a maximum elevation of approximately +166 feet (NAVD88).
- Cell 1 was designed to have a maximum elevation of +175 feet (NAVD88), corresponding to a height of approximately 90 feet above natural grade.
- Based on the most recent topographic survey completed on January 24, 2022, the consumed and remaining airspace in Cell 1 were estimated to be 2.49 and 0.47 million cubic yards, respectively.
- The latest airspace consumption rate in Cell 1 was estimated to be 0.4 million cubic yards per year.
- Deposition of the miscellaneous wastes inside Cell 1 was estimated to be 0.08 million cubic yards per year.
- Considering an average airspace consumption rate of 0.4 million cubic yards per year, Cell 1 was projected to reach its maximum storage capacity in March 2023.
- No changes to the CCR Fugitive Dust Control Plan and fugitive dust control measures are necessary, but OUC should continue to monitor fugitive dust emissions and assess the effectiveness of fugitive dust control measures.
- The new leachate pumping system for Cell 1, which was not completely installed until November because of supply chain issues associated with the pandemic, was activated in December.
- OUC should continue to use auxiliary diesel pumps to remove any accumulated leachate in Cell 1 and discharge it to the CWSA Runoff Pond whenever the leachate pumping system is out of service.
- Except for the leachate pumping system and CWSA Runoff Pond pumps, the action items noted on the weekly landfill inspection reports were part of routine landfill maintenance activities.

- OUC or its landfill contractor should continue to inspect Cells 1 and 2 as well as related facilities on a weekly basis and after heavy storm events.
- The 2022 annual inspection showed no signs of actual or potential structural weakness, and no conditions that are disrupting or have the potential to disrupt the operation and safety of Cells 1 and 2.
- The 2022 annual inspection did not reveal any major items or issues that require immediate corrective measures.
- Observations during the 2022 annual inspection indicated that placement and compaction of waste materials inside Cell 1 were performed in a satisfactory manner.
- As part of routine landfill maintenance activities, bare spots should be sodded or seeded to minimize erosion, and any erosion gullies should be repaired and then sodded or seeded.
- The erosion gully on the west slope of Cell 1 towards the south side should be repaired as soon as practical.
- Concentrated runoff down the landfill slope should be avoided to minimize erosion.
- The landfill slope should be maintained no steeper than 3H:1V from crest to toe.
- Excavated ditch sediments that had been dumped on the inside slope of the containment dike should be spread evenly and smoothly to reduce concentrated flow that could cause erosion on the dike slope.

### **Recordkeeping and Future Inspection**

OUC should be cognizant of the following recordkeeping requirements: (i) the annual CCR landfill inspection report must be placed in the written operating record at the facility as stipulated in 40 CFR § 257.105(g)(9); (ii) the State Director<sup>1</sup> must be notified of the availability of the report as stipulated in 40 CFR § 257.106(g)(7); and (iii) the report must be posted on the OUC website as stipulated in 40 CFR § 257.107(g)(7).

As stipulated in 40 CFR §257.84(b)(4), the schedule for the next annual CCR landfill inspection is as follows:

*“... In all cases, the deadline for completing subsequent inspection reports is based on the date of completing the previous inspection report. For purposes of this section, the owner or operator has completed an inspection when the inspection report has been placed in the facility’s operating record as required by § 257.105(g)(9).”*

---

<sup>1</sup> In the CCR Rule, the State Director refers to “the chief administrative officer of the lead state agency responsible for implementing the state program regulating disposal in CCR landfills, CCR surface impoundments, and all lateral expansions of a CCR unit.”

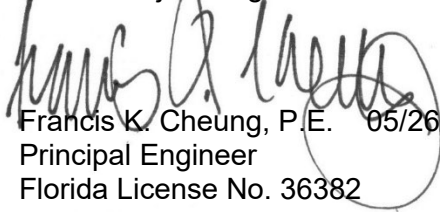
TT-AAI interprets this to mean that the next annual CCR landfill inspection should be completed and the inspection report should be placed in the operating record at the Stanton Energy Center within one year of the date that this report is officially placed in the operating record. Accordingly, we recommend the next annual inspection of Cell 1 be performed in early 2023.

TT-AAI appreciates the opportunity of providing services to OUC. If you have any questions or need additional information, please contact us.

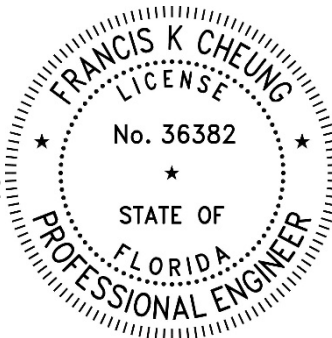
Very truly yours,  
ARDAMAN & ASSOCIATES, INC. - A Tetra Tech Company  
Certificate of Authorization Number 5950



Jeyisanker Mathiyaparanam, P.E.  
Senior Project Engineer



Francis K. Cheung, P.E. 05/26/22  
Principal Engineer  
Florida License No. 36382

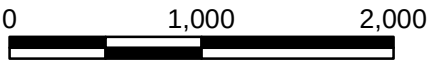
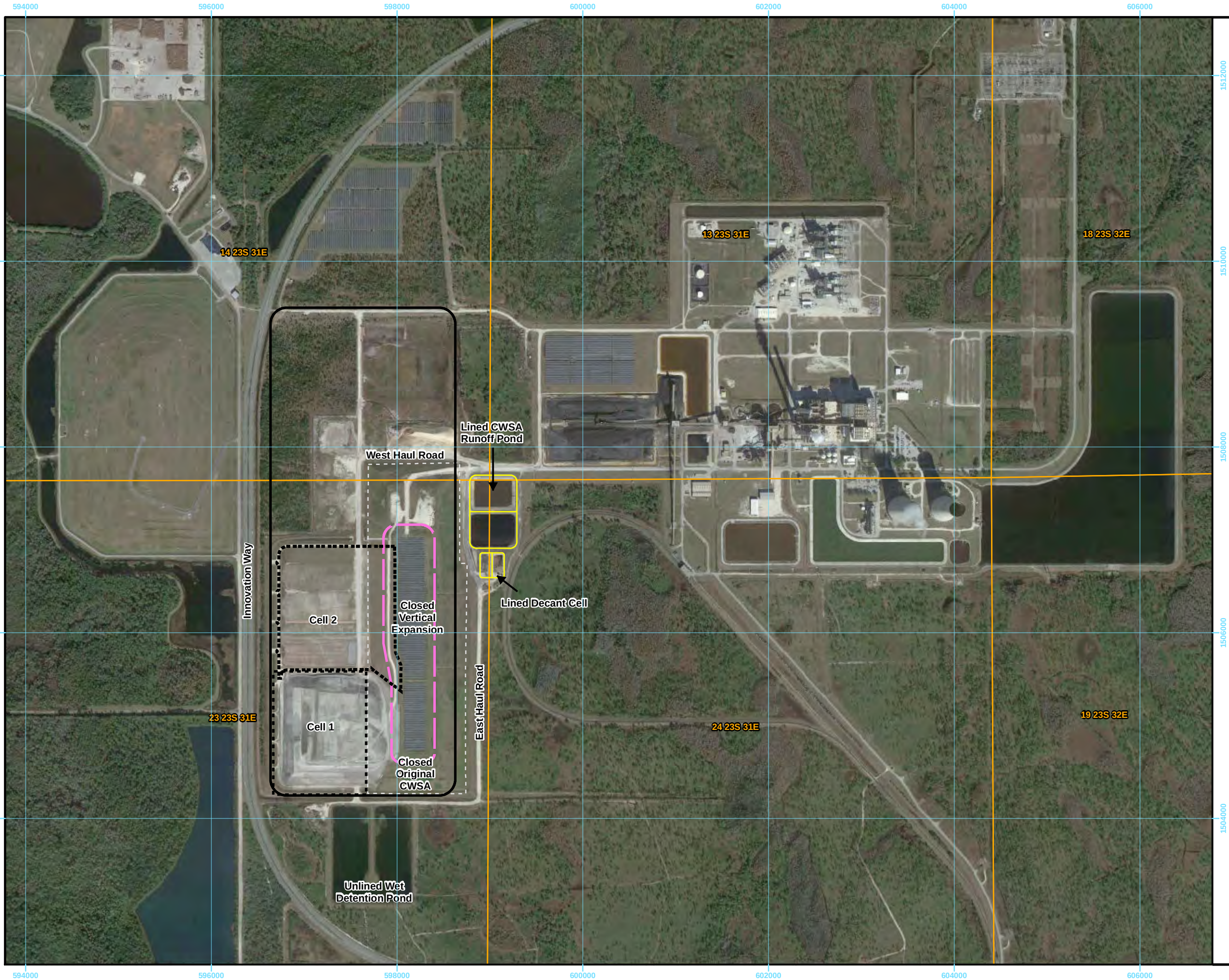


Enclosures

Francis K Cheung Digitally signed by Francis K Cheung  
Date: 2022.05.26 11:11:41 -04'00'

This item has been digitally signed and sealed by Francis K. Cheung on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.



Scale: 1" = 1,000'

SOURCE: AERIAL IMAGERY  
FLOWN NOVEMBER 2021  
BY GOOGLE EARTH.

**Legend**

- Cell Boundary
- 250-Acre Area
- Closed Vertical Expansion
- Original CWSA Limits
- PLSS



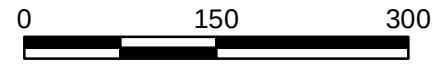
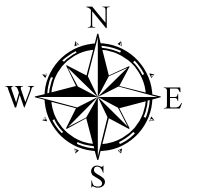
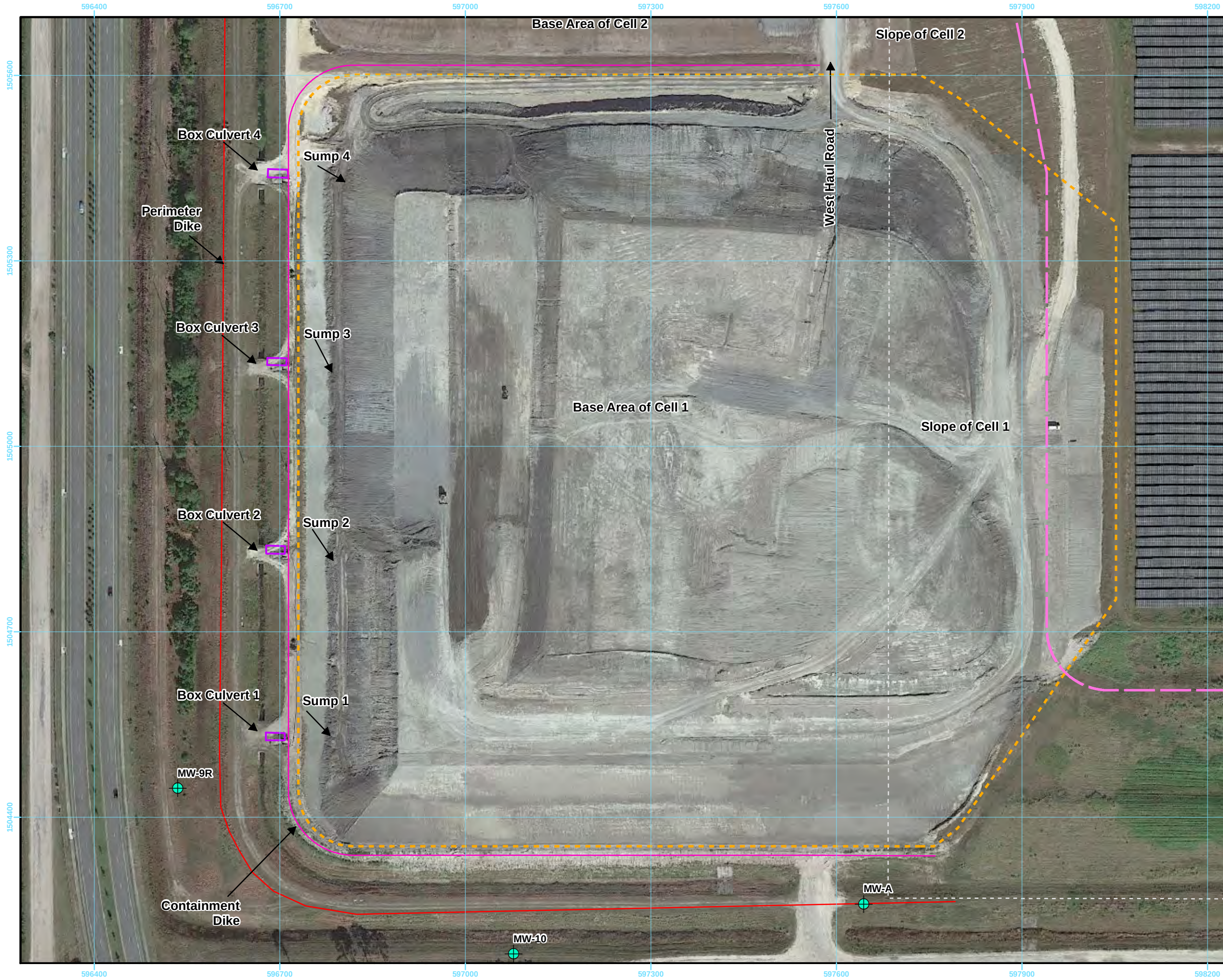
**SITE PLAN**



**2022 ANNUAL INSPECTION OF  
CCR LANDFILL AT  
STANTON ENERGY CENTER  
ORANGE COUNTY, FLORIDA**

|                               |                            |                         |
|-------------------------------|----------------------------|-------------------------|
| DRAWN BY: <b>TJC</b>          | CHECKED BY: <b>JM</b>      | DATE: <b>05/13/2022</b> |
| FILE NO.<br><b>21-13-0076</b> | APPROVED BY:<br><b>FKC</b> | FIGURE:<br><b>1</b>     |

W:\Projects\2021\21-13-0076\_OUC\ArcGIS\Ard.ayousi\20220504\Annotated Aerial Photograph.mxd



Scale: 1" = 150'

SOURCE: AERIAL IMAGERY  
FLOWN NOVEMBER 2021  
BY GOOGLE EARTH.

**Legend**

- Monitoring Well/Piezometer
- Containment Dike
- Perimeter Dike
- Pump Station Control Panel
- Closed Vertical Expansion
- Cell 1 Liner Limit
- Original CWSA Limits



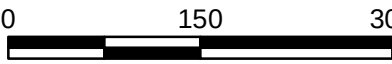
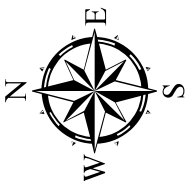
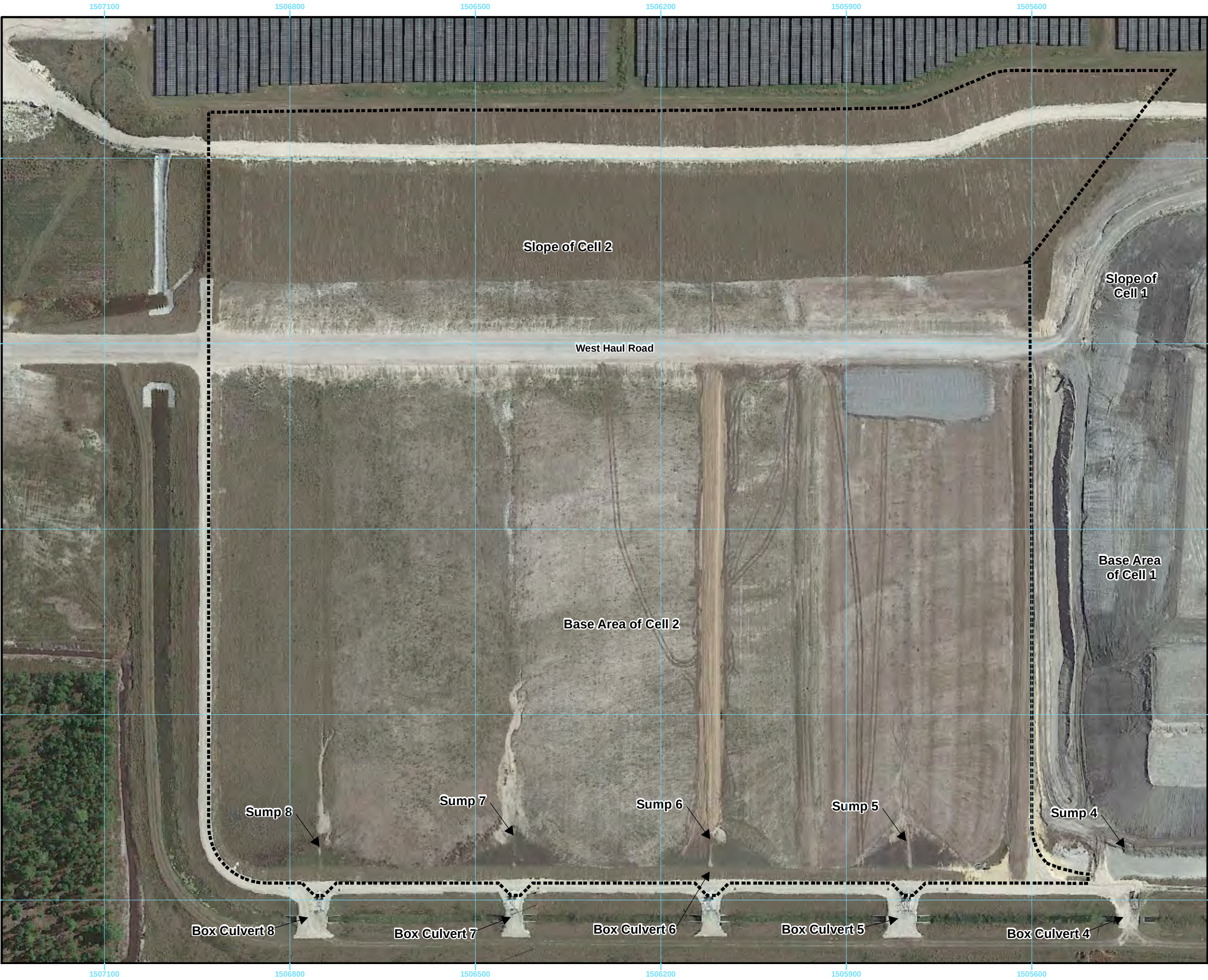
**AERIAL PHOTOGRAPH OF CELL 1**



**2022 ANNUAL INSPECTION OF  
CCR LANDFILL AT  
STANTON ENERGY CENTER  
ORANGE COUNTY, FLORIDA**

|                               |                            |                         |
|-------------------------------|----------------------------|-------------------------|
| DRAWN BY: <b>TJC</b>          | CHECKED BY: <b>JM</b>      | DATE: <b>05/13/2022</b> |
| FILE NO.<br><b>21-13-0076</b> | APPROVED BY:<br><b>FKC</b> | FIGURE:<br><b>2</b>     |

W:\Projects\2021\21-13-0076\_OUC\ArcGIS\Ard.ayousi\20220504\Annotated Aerial Photograph Cell 2.mxd



Scale: 1" = 150'

SOURCE: AERIAL IMAGERY  
FLOWN NOVEMBER 2021  
BY GOOGLE EARTH.

**Legend**

----- Cell 2 Boundary



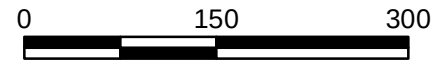
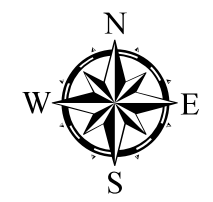
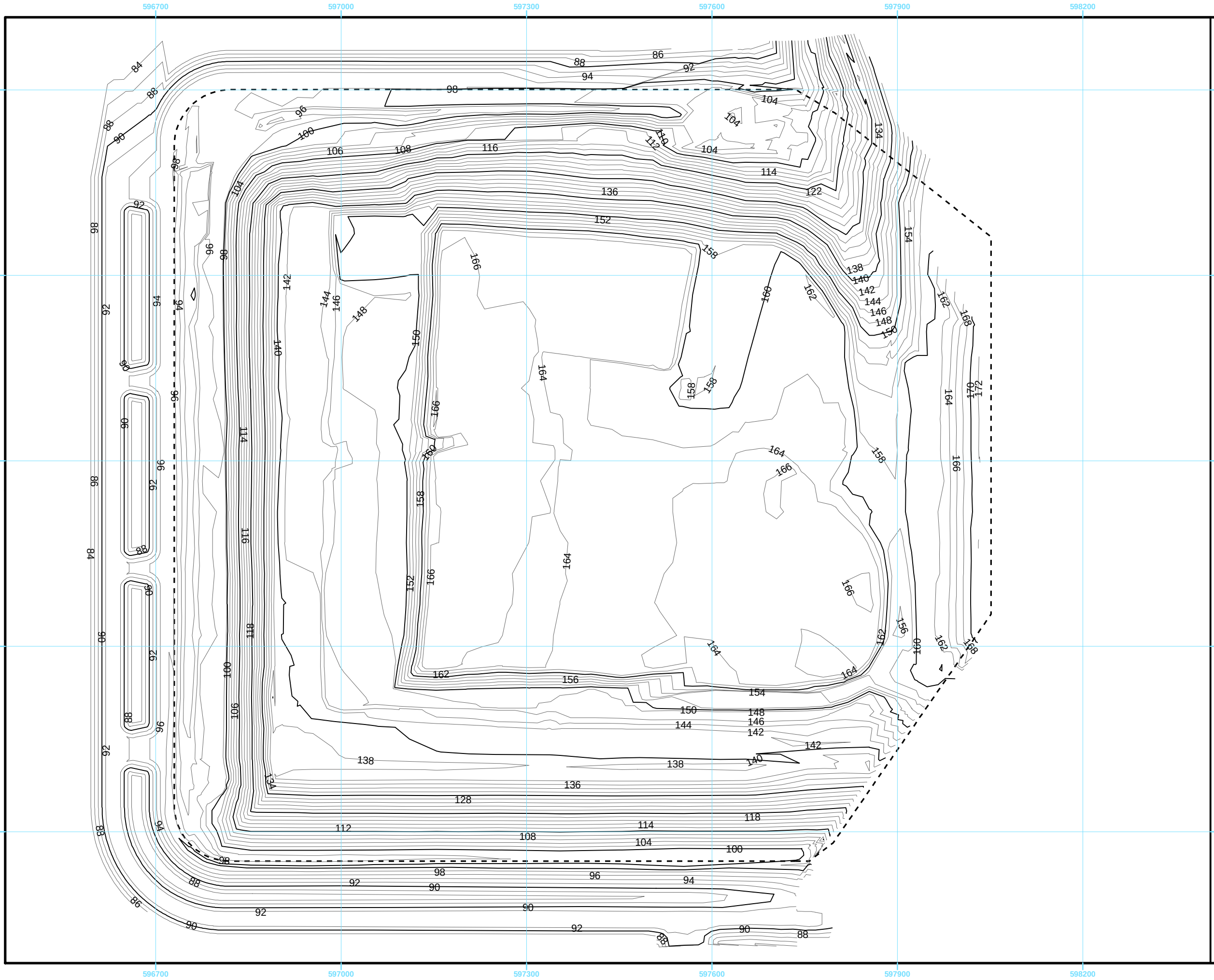
**AERIAL PHOTOGRAPH OF CELL 2**



2022 ANNUAL INSPECTION OF  
CCR LANDFILL AT  
STANTON ENERGY CENTER  
ORANGE COUNTY, FLORIDA

|                        |                     |                  |
|------------------------|---------------------|------------------|
| DRAWN BY: TJC          | CHECKED BY: JM      | DATE: 05/13/2022 |
| FILE NO.<br>21-13-0076 | APPROVED BY:<br>FKC | FIGURE:<br>3     |

W:\Projects\2021\21-13-0076\_OUC\ArcGIS\Ard.ayousi\20220504\Topography Cell 1 2022124.mxd



Scale: 1" = 150'

SOURCE: TOPOGRAPHIC SURVEY  
BY WOOD ENVIRONMENT &  
INFRASTRUCTURE SOLUTIONS,  
INC., JANUARY 24, 2022.

**Legend**

- 5' Contour
- 1' Contour
- Cell 1 Liner Limit



01/24/2022  
SURVEY OF CELL 1



2022 ANNUAL INSPECTION OF  
CCR LANDFILL AT  
STANTON ENERGY CENTER  
ORANGE COUNTY, FLORIDA

|                     |                  |                  |
|---------------------|------------------|------------------|
| DRAWN BY: TJC       | CHECKED BY: JM   | DATE: 05/13/2022 |
| FILE NO. 21-13-0076 | APPROVED BY: FKC | FIGURE: 4        |

Appendix 1

**Topographic Surveys by MIKON as of  
September 30, 2020 and September 14, 2021**

October 7, 2020

Mr. Brian Moore  
Orlando Utilities Commission  
5100 South Alafaya Trail  
Orlando, FL 32831-2001

RE: Stanton Energy Center  
Ash Landfill

Dear Mr. Moore:

We have completed the volume determinations of the horizontal expansion of the Fly Ash Landfill at the Stanton Energy Center. The volume of the horizontal area is reported as total volume referenced to base. Total volume includes active and capped (if any) areas. The results are as follows:

#### VOLUMES

Date of Survey: September 30, 2020

| Area       | Reference Datum   | Type of Volume | Fill (cy) | Cut (cy) |
|------------|-------------------|----------------|-----------|----------|
| Horizontal | Base <sup>1</sup> | Total          | 2,043,473 | 173      |

<sup>1</sup> Base model developed by MIKON Corporation from survey data obtained September 2013 and the surface of adjacent cell to the east surveyed in 2014..

Attached is a site topography drawing both in paper format and on disk. Should you have any questions regarding this report or if we may be of further assistance, please do not hesitate to contact us. We appreciate the opportunity to provide our services to Orlando Utilities.

Respectfully submitted,

MIKON Corporation

*Bryan W. Davis*

*Barbara Jane Patrick*

BWD/BJP:js

Attachments: Landfill Topography Drawing (11 x 17) and CD





SCALE 1" = 300'  
2' CONTOUR INTERVAL  
0 300

DATE OF SURVEY: SEPTEMBER 30, 2020

**SHEET NOTES:**

1. FIELD WORK AND MAPPING FOR LANDFILL TOPOGRAPHY PROVIDED BY MIKON CORPORATION.

PERMITTED AREA = 315.1 ACRES

ASH LANDFILL  
VERTICAL AREA = 93.4 ACRES  
HORIZONTAL AREA = 26.4 ACRES  
TOTAL AREA = 119.8 ACRES

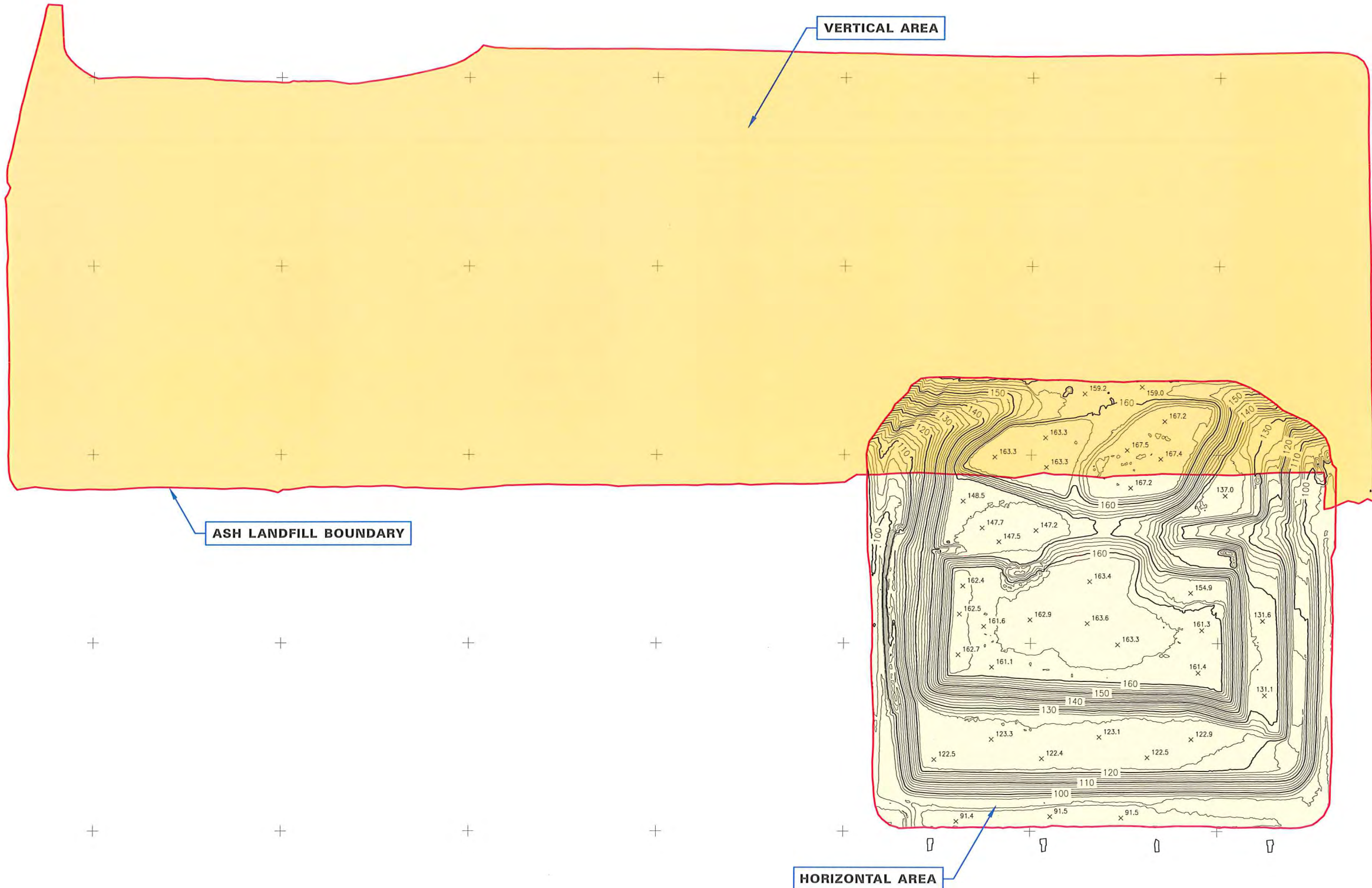
N 1,505,000  
E 442,500

N 1,507,500  
E 443,000

N 1,504,000  
E 443,000

N 1,508,000  
E 440,500

N 1,504,000  
E 440,500



October 1, 2021

Mr. Brian Moore  
Orlando Utilities Commission  
5100 South Alafaya Trail  
Orlando, FL 32831-2001

RE: Stanton Energy Center  
Ash Landfill

Dear Mr. Moore:

We have completed the volume determinations of the horizontal expansion of the Fly Ash Landfill at the Stanton Energy Center. The volume of the horizontal area is reported as total volume referenced to base. Total volume includes active and capped (if any) areas. The results are as follows:

#### VOLUMES

Date of Survey: September 14, 2021

| Area       | Reference Datum   | Type of Volume | Fill (cy) | Cut (cy) |
|------------|-------------------|----------------|-----------|----------|
| Horizontal | Base <sup>1</sup> | Total          | 2,430,950 | 1        |

<sup>1</sup> Base model developed by MIKON Corporation from survey data obtained September 2013 and the surface of adjacent cell to the east surveyed in 2014..

Attached is a site topography drawing both in paper format and on disk. Should you have any questions regarding this report or if we may be of further assistance, please do not hesitate to contact us. We appreciate the opportunity to provide our services to Orlando Utilities.

Respectfully submitted,

MIKON Corporation

*Bryan W. Davis*

*Brian J. Kramer*

BWD/BJK:js

Attachments: Landfill Topography Drawing (11 x 17) and AutoCAD File





SCALE 1" = 300'  
2' CONTOUR INTERVAL  
0 300

DATE OF SURVEY: SEPTEMBER 14, 2021

**SHEET NOTES:**

1. FIELD WORK AND MAPPING FOR LANDFILL TOPOGRAPHY PROVIDED BY MIKON CORPORATION.

PERMITTED AREA = 315.1 ACRES

**ASH LANDFILL**

VERTICAL AREA = 93.4 ACRES  
HORIZONTAL AREA = 26.4 ACRES  
TOTAL AREA = 119.8 ACRES

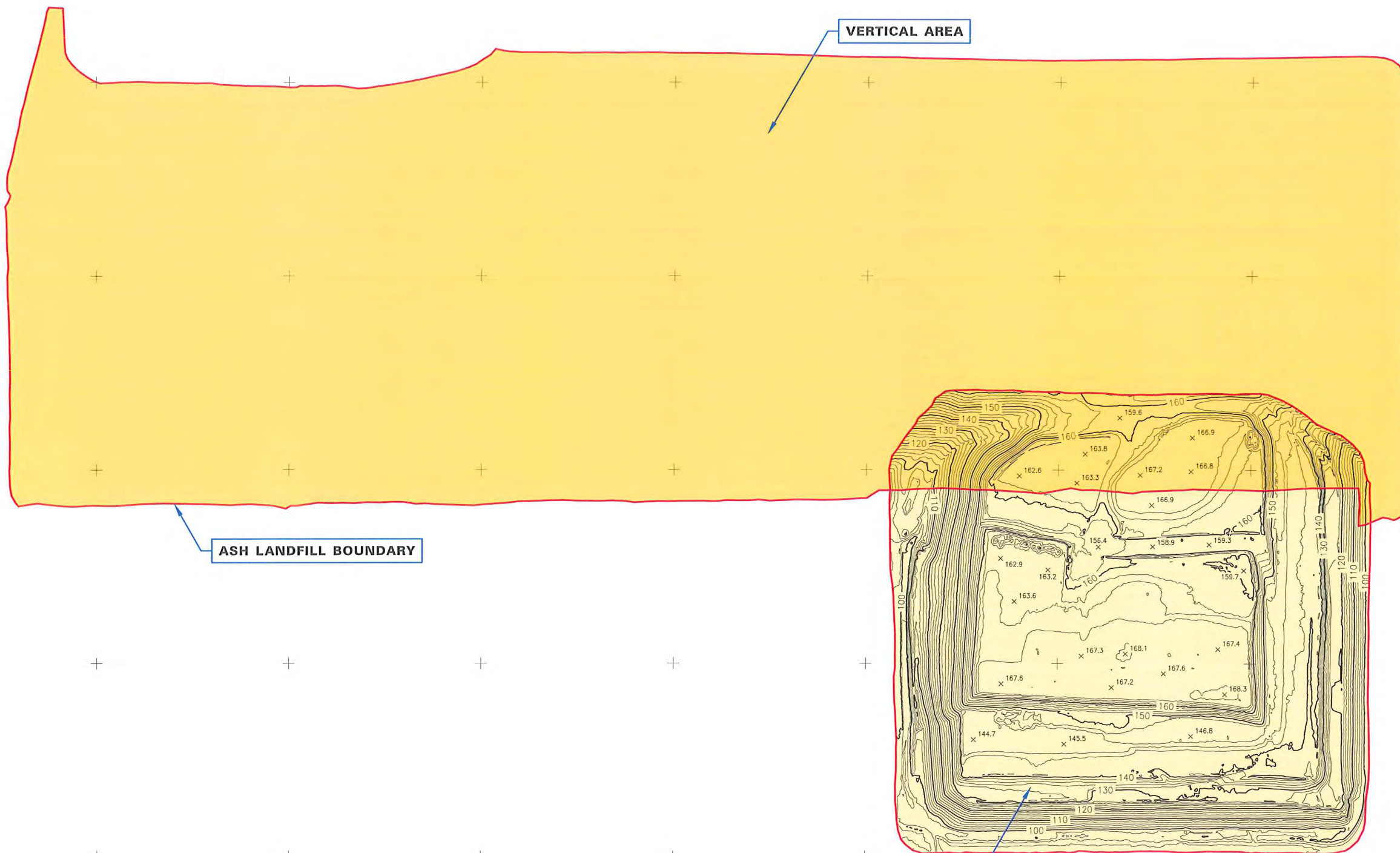
N 1,508,000  
E 442,500

N 1,507,500  
E 443,000

N 1,504,000  
E 443,000

N 1,508,000  
E 440,500

N 1,504,000  
E 440,500



VERTICAL AREA

ASH LANDFILL BOUNDARY

HORIZONTAL AREA



FILE NAME: STANTON\_LE\_09\_21  
DRAWN BY: DHS  
CHECKED BY: BLK

# ORLANDO UTILITIES COMMISSION

## STANTON ENERGY CENTER

ASH  
LANDFILL  
TOPOGRAPHY

DATE: 09/30/21

SHEET 1 of 1

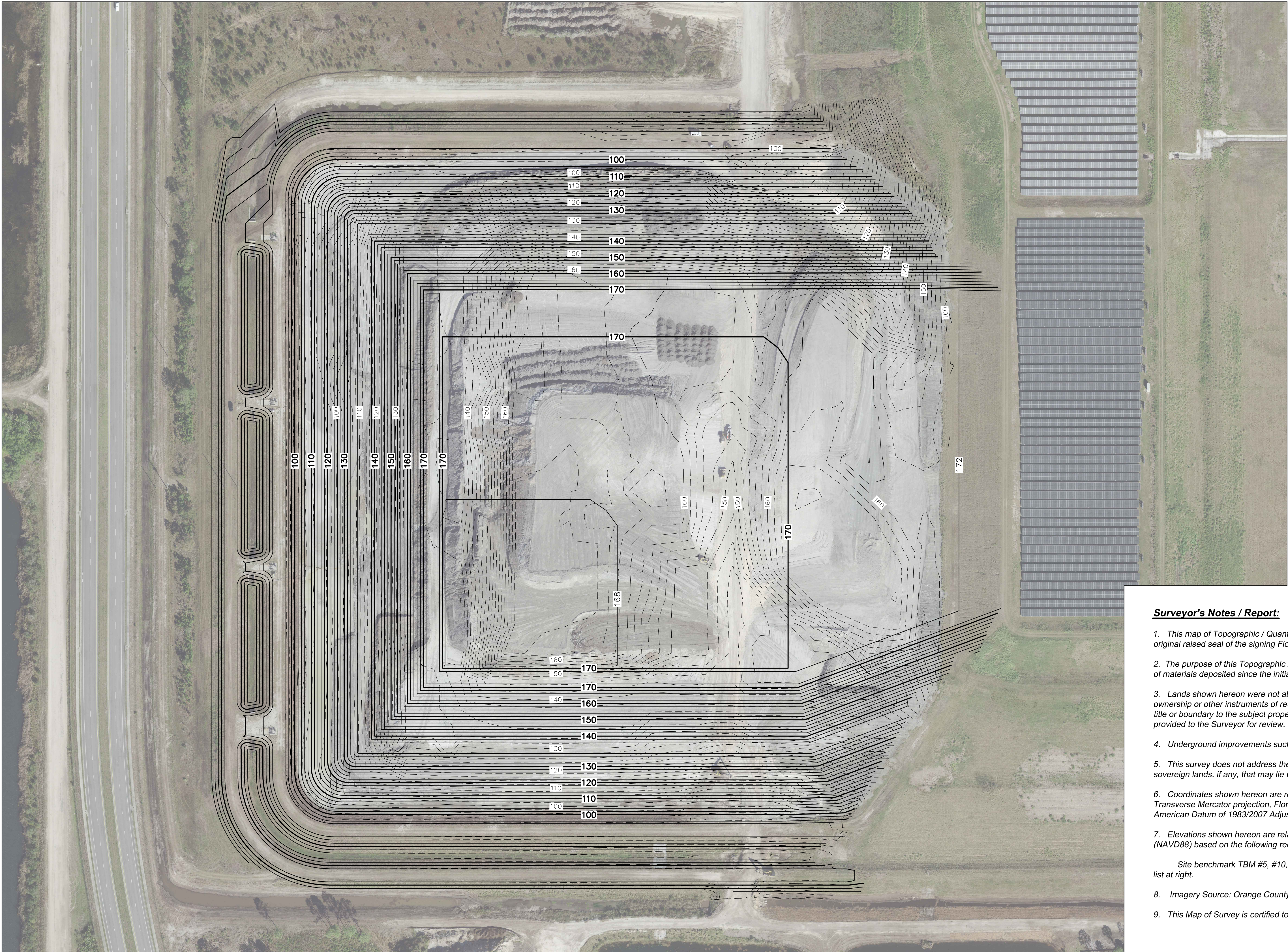
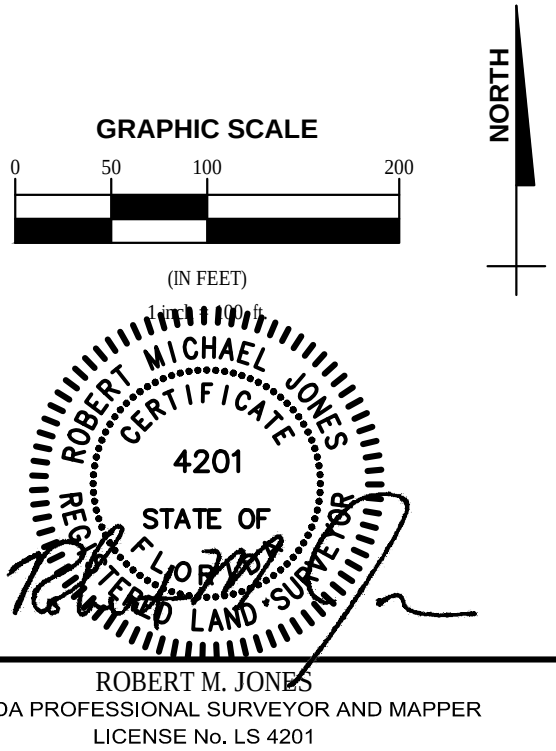
Appendix 2

**Topographic and Material Quantity Surveys  
by Wood as of April 23, 2021 and January 24, 2022**

Map of Topographic / Quantity Survey  
of  
**Horizontal Expansion of Combustion Waste Storage Area - Cell 1**  
Located in  
**Curtis H. Stanton Energy Center**  
Orange County, Florida

| SURFACE  | FILL<br>(CY) | CUT<br>(CY) | NET FILL<br>(CY) |
|----------|--------------|-------------|------------------|
| JAN 2015 | 34,493.11    | 1,246.77    | 33,246.34        |
| JAN 2016 | 90,582.32    | 59.63       | 90,522.69        |
| FEB 2016 | 51,492.27    | 1,617.08    | 49,875.19        |
| MAR 2016 | 50,521.00    | 415.20      | 50,105.80        |
| APR 2016 | 42,996.09    | 107.39      | 42,888.70        |
| MAY 2016 | 30,746.55    | 1,315.06    | 29,431.49        |
| JUN 2016 | 24,725.26    | 1,318.89    | 23,406.37        |
| JUL 2016 | 23,903.85    | 720.50      | 23,183.35        |
| AUG 2016 | 45,680.73    | 552.65      | 45,128.08        |
| SEP 2016 | 35,277.68    | 2,717.19    | 32,560.49        |
| OCT 2016 | 41,091.95    | 373.75      | 40,718.20        |
| NOV 2016 | 26,769.78    | 584.59      | 26,185.19        |
| DEC 2016 | 39,511.03    | 71.13       | 39,439.90        |
| JAN 2017 | 49,129.26    | 638.02      | 48,491.24        |
| FEB 2017 | 20,414.90    | 543.32      | 19,871.58        |
| MAR 2017 | 18,828.76    | 75.46       | 18,753.30        |
| APR 2017 | 74,873.83    | 10,370.50   | 64,503.33        |
| MAY 2017 | 69,893.77    | 7,856.80    | 62,036.97        |
| JUN 2017 | 36,933.97    | 1,137.68    | 35,796.29        |
| JUL 2017 | 30,986.22    | 1,659.06    | 29,327.16        |
| AUG 2017 | 30,516.37    | 1,725.25    | 28,791.12        |
| SEP 2017 | 37,960.57    | 2,102.78    | 35,857.79        |
| OCT 2017 | 22,549.35    | 2,232.30    | 20,317.05        |
| NOV 2017 | 48,815.96    | 3,263.68    | 45,552.28        |
| JAN 2018 | 77,758.64    | 36,162.39   | 41,596.25        |
| FEB 2018 | 38,056.88    | 4,604.22    | 33,452.66        |
| APR 2018 | 69,275.99    | 58,750.94   | 10,525.05        |
| MAY 2018 | 95,418.82    | 57,003.63   | 38,415.19        |
| JUL 2018 | 177,218.68   | 54,596.31   | 122,622.37       |
| JAN 2019 | 214,742.47   | 11,673.48   | 203,068.99       |
| FEB 2019 | 62,388.98    | 27,949.34   | 34,439.64        |
| APR 2019 | 61,464.19    | 53,646.10   | 7,818.09         |
| AUG 2019 | 156,554.09   | 10,818.11   | 145,735.98       |
| OCT 2019 | 67,009.81    | 3,936.58    | 83,073.23        |
| APR 2020 | 171,029.52   | 2,389.84    | 168,639.68       |
| MAY 2020 | 44,781.15    | 11,250.01   | 33,531.14        |
| SEP 2020 | 160,224.99   | 21,340.37   | 138,884.62       |
| APR 2021 | 228,567.12   | 7,220.07    | 221,347.05       |

| SURFACE                                              | FILL<br>(CY) | CUT<br>(CY) | NET FILL<br>(CY) |
|------------------------------------------------------|--------------|-------------|------------------|
| VOLUME REMAINING<br>FROM APR 2021<br>TO FINAL DESIGN | 734,820.79   | 8,685.81    | 726,134.98       |



**Surveyor's Notes / Report:**

- This map of Topographic / Quantity Survey is not valid without the signature and the original raised seal of the signing Florida licensed Surveyor and Mapper.
- The purpose of this Topographic / Quantity survey is to depict and develop the quantity of materials deposited since the initial topographic survey performed on in January 2015.
- Lands shown hereon were not abstracted by the Surveyor for rights-of-way, easements, ownership or other instruments of record. No title opinion or abstract of matters affecting title or boundary to the subject property or those of adjoining land owners has been provided to the Surveyor for review.
- Underground improvements such as foundations and utilities were not located.
- This survey does not address the identification or location of jurisdictional wetlands or sovereign lands, if any, that may lie within or adjacent to the lands surveyed.
- Coordinates shown hereon are relative to the Florida State Plane Coordinate System, Transverse Mercator projection, Florida East Zone (FL E 0901), US Survey Foot, North American Datum of 1983/2007 Adjustment.
- Elevations shown hereon are relative to the North American Vertical Datum of 1988 (NAVD88) based on the following recovered or reset benchmarks:  
  
Site benchmark TBM #5, #10, #12, #13, #14, #15, #16, #53 and #54 as noted and list at right.
- Imagery Source: Orange County, Florida , date: 2019
- This Map of Survey is certified to: ORLANDO UTILITIES COMMISSION

**Legend**

- = Final Design Major Elevation
  - - - = Final Design Minor Elevation
  - - - = Current Major Contour Elevation (Apr 23, 2021)
  - - - = Current Minor Contour Elevation (Apr 23, 2021)
  - CY = Cubic Yards
  - SF = Square Feet
- Field survey last day in field 4/23/21

Prepared by:

**Wood Environment & Infrastructure Solutions, Inc.**

550 Northlake Boulevard, Suite 1000  
Altamonte Springs, FL 32701 USA  
Phone: (407) 522-7570  
www.woodinc.com  
Certificate of Authorization Number LB-3007892

Prepared for:

ORLANDO UTILITIES COMMISSION  
5971 Perishing Avenue  
Orlando, Florida 32822  
Phone: 407-384-4077

Project Title: Map of Topographic / Quantity Survey  
**Horizontal Expansion of Combustion Waste Storage Area - Cell 1**  
Curtis H. Stanton Energy Center  
Orange County, Florida

Sheet No. 1 of 1

County: Brevard County, Florida  
Dwg. Date: Apr 30, 2021  
Photo Date: Jan 1, 2019  
Field Book: JSP  
Office No: 6374, 18, 1079  
Drawn by: RMJ  
Checked by: RMJ

Project Title: Map of Topographic / Quantity Survey  
**Horizontal Expansion of Combustion Waste Storage Area - Cell 1**  
Curtis H. Stanton Energy Center  
Orange County, Florida

Sheet No. 1 of 1

Map of Topographic / Quantity Survey  
of  
**Horizontal Expansion of Combustion Waste Storage Area - Cell 1**  
Located in  
**Curtis H. Stanton Energy Center**  
Orange County, Florida

| SURFACE  | FILL<br>(CY) | CUT<br>(CY) | NET FILL<br>(CY) |
|----------|--------------|-------------|------------------|
| JAN 2015 | 34,493.11    | 1,246.77    | 33,246.34        |
| JAN 2016 | 90,582.32    | 59.63       | 90,522.69        |
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| JUL 2016 | 23,903.85    | 720.50      | 23,183.35        |
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| SEP 2016 | 35,277.68    | 2,717.19    | 32,560.49        |
| OCT 2016 | 41,091.95    | 373.75      | 40,718.20        |
| NOV 2016 | 26,769.78    | 584.59      | 26,185.19        |
| DEC 2016 | 39,511.03    | 71.13       | 39,439.90        |
| JAN 2017 | 49,129.26    | 638.02      | 48,491.24        |
| FEB 2017 | 20,414.90    | 543.32      | 19,871.58        |
| MAR 2017 | 18,828.76    | 75.46       | 18,753.30        |
| APR 2017 | 74,873.83    | 10,370.50   | 64,503.33        |
| MAY 2017 | 69,893.77    | 7,856.80    | 62,036.97        |
| JUN 2017 | 36,933.97    | 1,137.68    | 35,796.29        |
| JUL 2017 | 30,986.22    | 1,659.06    | 29,327.16        |
| AUG 2017 | 30,516.37    | 1,725.25    | 28,791.12        |
| SEP 2017 | 37,960.57    | 2,102.78    | 35,857.79        |
| OCT 2017 | 22,549.35    | 2,232.30    | 20,317.05        |
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| JAN 2018 | 77,758.64    | 36,162.39   | 41,596.25        |
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| MAY 2018 | 95,418.82    | 57,003.63   | 38,415.19        |
| JUL 2018 | 177,218.68   | 54,596.31   | 122,622.37       |
| JAN 2019 | 214,742.47   | 11,673.48   | 203,068.99       |
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| APR 2019 | 61,464.19    | 53,646.10   | 7,818.09         |
| AUG 2019 | 156,554.09   | 10,818.11   | 145,735.98       |
| OCT 2019 | 87,009.81    | 3,936.58    | 83,073.23        |
| APR 2020 | 171,029.52   | 2,389.84    | 168,639.68       |
| MAY 2020 | 44,781.15    | 11,250.01   | 33,531.14        |
| SEP 2020 | 160,224.99   | 21,340.37   | 138,884.62       |
| APR 2021 | 228,567.12   | 7,220.07    | 221,347.05       |
| JAN 2022 | 272,695.46   | 6,566.70    | 266,128.76       |

| SURFACE                                              | FILL<br>(CY) | CUT<br>(CY) | NET FILL<br>(CY) |
|------------------------------------------------------|--------------|-------------|------------------|
| VOLUME REMAINING<br>FROM JAN 2022<br>TO FINAL DESIGN | 488,796.88   | 17,298.03   | 471,498.85       |

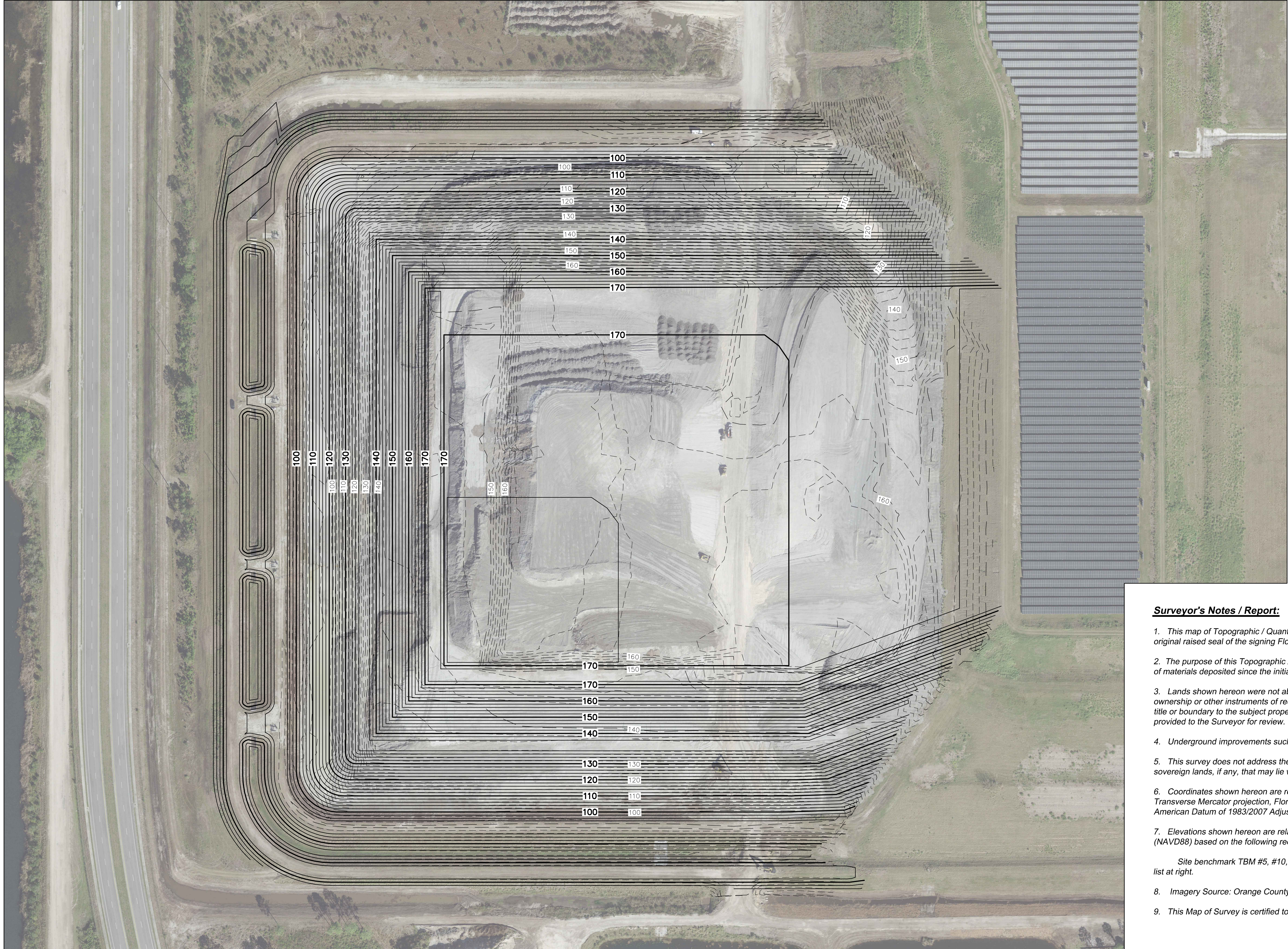
GRAPHIC SCALE

0 50 100 200

(IN FEET)

NORTH

ROBERT MICHAEL JONES  
4201  
STATE OF  
FLORIDA  
PROFESSIONAL SURVEYOR AND MAPPER  
LICENSE No. LS 4201



**Surveyor's Notes / Report:**

- This map of Topographic / Quantity Survey is not valid without the signature and the original raised seal of the signing Florida licensed Surveyor and Mapper.
- The purpose of this Topographic / Quantity survey is to depict and develop the quantity of materials deposited since the initial topographic survey performed on in January 2015.
- Lands shown hereon were not abstracted by the Surveyor for rights-of-way, easements, ownership or other instruments of record. No title opinion or abstract of matters affecting title or boundary to the subject property or those of adjoining land owners has been provided to the Surveyor for review.
- Underground improvements such as foundations and utilities were not located.
- This survey does not address the identification or location of jurisdictional wetlands or sovereign lands, if any, that may lie within or adjacent to the lands surveyed.
- Coordinates shown hereon are relative to the Florida State Plane Coordinate System, Transverse Mercator projection, Florida East Zone (FL E 0901), US Survey Foot, North American Datum of 1983/2007 Adjustment.
- Elevations shown hereon are relative to the North American Vertical Datum of 1988 (NAVD88) based on the following recovered or reset benchmarks:  
  
Site benchmark TBM #5, #10, #12, #13, #14, #15, #16, #53 and #54 as noted and list at right.
- Imagery Source: Orange County, Florida , date: 2019
- This Map of Survey is certified to: ORLANDO UTILITIES COMMISSION

**Legend**

- = Final Design Major Elevation
  - = Final Design Minor Elevation
  - - - - - = Current Major Contour Elevation (Jan 24, 2022)
  - - - - - = Current Minor Contour Elevation (Jan 24, 2022)
  - CY = Cubic Yards
  - SF = Square Feet
- Field survey last day in field 1/24/22

Prepared by:

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**ORLANDO UTILITIES COMMISSION**  
5971 Perishing Avenue  
Orlando, Florida 32822  
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**Horizontal Expansion of Combustion Waste Storage Area - Cell 1**

Curtis H. Stanton Energy Center  
Orange County, Florida

Project Title: Map of Topographic / Quantity Survey  
Horizontal Expansion of Combustion Waste Storage Area - Cell 1

Sheet No. 1 of 1

County: Brevard County, Florida  
Field Book: 6374, 18, 1079  
Office No.: 6374, 18, 1079  
Dwg Name: 2022-01 Expansion Cell 1.dwg

Dwg. Date: Apr 30, 2021  
Photo Date: Jan 1, 2019  
Drawn by: JSP  
Checked by: RMJ

Date: \_\_\_\_\_  
Revision: \_\_\_\_\_  
Date: \_\_\_\_\_  
Revision: \_\_\_\_\_

Prepared for:

**wood.**

## Appendix 3

### **Summary of Fugitive Dust Daily Logs for 2021**

| Date       | Dust Observed<br>Roadways or<br>Landfill? | Water Applied to<br>Landfill? | Water Applied to<br>Roadways? | Sweeper Truck<br>Operated on<br>Roadways? | If Dust, Why Was<br>Sweeper or<br>Water Truck<br>Not Used? |
|------------|-------------------------------------------|-------------------------------|-------------------------------|-------------------------------------------|------------------------------------------------------------|
| 01/01/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 01/04/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 01/05/2021 |                                           |                               |                               | NO                                        |                                                            |
| 01/06/2021 |                                           |                               |                               | NO                                        |                                                            |
| 01/07/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 01/08/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 01/11/2021 |                                           |                               |                               | NO                                        |                                                            |
| 01/12/2021 |                                           |                               |                               | NO                                        |                                                            |
| 01/13/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 01/14/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 01/15/2021 |                                           |                               |                               | NO                                        |                                                            |
| 01/18/2021 |                                           |                               |                               | NO                                        |                                                            |
| 01/19/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 01/20/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 01/21/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 01/22/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 01/25/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 01/26/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 01/27/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 01/28/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 01/29/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/01/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/02/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 02/03/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/04/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 02/05/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/08/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/09/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/10/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/11/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/12/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/15/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/16/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/17/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 02/18/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 02/19/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/22/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/23/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/24/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 02/25/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 02/26/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/01/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/02/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |

| Date       | Dust Observed<br>Roadways or<br>Landfill? | Water Applied to<br>Landfill? | Water Applied to<br>Roadways? | Sweeper Truck<br>Operated on<br>Roadways? | If Dust, Why Was<br>Sweeper or<br>Water Truck<br>Not Used? |
|------------|-------------------------------------------|-------------------------------|-------------------------------|-------------------------------------------|------------------------------------------------------------|
| 03/03/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/04/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/05/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/08/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 03/09/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/10/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/11/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 03/12/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/15/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/16/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/17/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/18/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/19/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 03/22/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 03/23/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/24/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/25/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 03/26/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/29/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 03/30/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 03/31/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 04/01/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 04/02/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 04/05/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 04/06/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 04/07/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 04/08/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 04/09/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 04/12/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 04/13/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 04/14/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 04/15/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 04/16/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 04/19/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 04/20/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 04/21/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 04/22/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 04/23/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 04/26/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 04/27/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 04/28/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 05/05/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 05/06/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |

| Date       | Dust Observed<br>Roadways or<br>Landfill? | Water Applied to<br>Landfill? | Water Applied to<br>Roadways? | Sweeper Truck<br>Operated on<br>Roadways? | If Dust, Why Was<br>Sweeper or<br>Water Truck<br>Not Used? |
|------------|-------------------------------------------|-------------------------------|-------------------------------|-------------------------------------------|------------------------------------------------------------|
| 05/07/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 05/10/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 05/11/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 05/12/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 05/13/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 05/14/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 05/17/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 05/18/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 05/19/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 05/20/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 05/21/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 05/24/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 05/25/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 05/26/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 05/28/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 05/31/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 06/01/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 06/02/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 06/03/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 06/04/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 06/07/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 06/08/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 06/09/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 06/10/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 06/11/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 06/14/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 06/21/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 06/22/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 06/23/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 06/24/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 07/07/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 07/08/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 07/09/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 07/12/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 07/13/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 07/14/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 07/15/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 07/16/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 07/19/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 07/20/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 07/21/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 07/22/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 07/25/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |

| Date       | Dust Observed<br>Roadways or<br>Landfill? | Water Applied to<br>Landfill? | Water Applied to<br>Roadways? | Sweeper Truck<br>Operated on<br>Roadways? | If Dust, Why Was<br>Sweeper or<br>Water Truck<br>Not Used? |
|------------|-------------------------------------------|-------------------------------|-------------------------------|-------------------------------------------|------------------------------------------------------------|
| 07/26/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 07/27/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 07/28/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 07/29/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 07/30/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/02/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 08/03/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/04/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/05/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 08/06/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/09/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 08/10/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/11/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/12/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 08/13/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/16/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 08/17/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/18/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/19/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 08/20/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/23/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 08/24/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/25/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/26/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 08/27/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 08/30/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 08/31/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 09/01/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 09/02/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 09/03/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 09/06/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 09/07/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 09/08/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 09/09/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 09/10/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 09/13/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 09/14/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 09/15/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 09/16/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 09/17/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 09/20/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 09/21/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 09/22/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |

| Date       | Dust Observed<br>Roadways or<br>Landfill? | Water Applied to<br>Landfill? | Water Applied to<br>Roadways? | Sweeper Truck<br>Operated on<br>Roadways? | If Dust, Why Was<br>Sweeper or<br>Water Truck<br>Not Used? |
|------------|-------------------------------------------|-------------------------------|-------------------------------|-------------------------------------------|------------------------------------------------------------|
| 09/23/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 09/24/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 09/27/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 09/28/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 09/28/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 09/29/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/01/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 10/04/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 10/05/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/06/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/07/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 10/08/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/11/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 10/12/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/13/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/14/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/15/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/18/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 10/19/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/20/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/21/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/22/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 10/25/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 10/26/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/27/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 10/28/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 10/29/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 11/01/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 11/02/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 11/03/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 11/04/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 11/05/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 11/08/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 11/09/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 11/10/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 11/15/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 11/16/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 11/17/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 11/29/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 11/30/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 12/01/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 12/02/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 12/03/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |

| Date       | Dust Observed<br>Roadways or<br>Landfill? | Water Applied to<br>Landfill? | Water Applied to<br>Roadways? | Sweeper Truck<br>Operated on<br>Roadways? | If Dust, Why Was<br>Sweeper or<br>Water Truck<br>Not Used? |
|------------|-------------------------------------------|-------------------------------|-------------------------------|-------------------------------------------|------------------------------------------------------------|
| 12/06/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 12/07/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 12/08/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |
| 12/09/2021 | YES                                       | YES                           | YES                           | YES                                       |                                                            |
| 12/10/2021 | YES                                       | YES                           | YES                           | NO                                        |                                                            |

Appendix 4

**Summary of Weekly Landfill Inspection Reports for 2021**

| Week of Inspection | Cell 1 Containment Dikes  |                 |       |                           |                 |                 | Sumps at West End of CWSA |        |                                           |                       | East End Landfill | Stormwater Wet Detention Pond |                                      |            |  |
|--------------------|---------------------------|-----------------|-------|---------------------------|-----------------|-----------------|---------------------------|--------|-------------------------------------------|-----------------------|-------------------|-------------------------------|--------------------------------------|------------|--|
|                    | Exterior Slope Conditions |                 |       | Interior Slope Conditions |                 |                 | Water Level               |        | Pump Operations                           |                       | Slope Condition   | Slope Erosion                 | Inlet and Outlet Structure Condition | Vegetation |  |
|                    | North                     | West            | South | North                     | West            | South           | Cell 1                    | Cell 2 | Cell 1                                    | Cell 2                |                   |                               |                                      |            |  |
| 01/11/2021         | Good                      | Minimal erosion | Good  | Minimal erosion           | Minimal erosion | Minimal erosion | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 01/18/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 01/25/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 02/01/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 02/08/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 02/15/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 02/22/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 03/01/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 03/08/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 03/15/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 03/22/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 03/29/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 04/05/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 04/12/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 04/19/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 04/26/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 05/03/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps out of service/upgrading        |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 05/10/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps operational                     |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 05/17/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps operational                     |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 05/24/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps operational                     |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 05/31/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps operational                     |                       | Good              | Minimal                       | Good                                 | Good       |  |
| 06/07/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps operational                     | Pumps are not working | Good              | Minimal                       | Good                                 | Good       |  |
| 06/14/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps operational                     | Pumps are not working | Good              | Minimal                       | Good                                 | Good       |  |
| 07/06/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps operational                     | Pumps are not working | Good              | Minimal                       | Good                                 | Good       |  |
| 07/12/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | All pumps operational                     | Pumps are working     | Good              | Minimal                       | Good                                 | Good       |  |
| 07/19/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good            | Good                      |        | Pumps working in manual mode (sensor bad) | Pumps are working     | Good              | Minimal                       | Good                                 | Good       |  |

| Week of Inspection | Cell 1 Containment Dikes  |                 |       |                           |                 |       | Sumps at West End of CWSA |        |                                             |                   | East End Landfill | Stormwater Wet Detention Pond |                                      |                                 |
|--------------------|---------------------------|-----------------|-------|---------------------------|-----------------|-------|---------------------------|--------|---------------------------------------------|-------------------|-------------------|-------------------------------|--------------------------------------|---------------------------------|
|                    | Exterior Slope Conditions |                 |       | Interior Slope Conditions |                 |       | Water Level               |        | Pump Operations                             |                   | Slope Condition   | Slope Erosion                 | Inlet and Outlet Structure Condition | Vegetation                      |
|                    | North                     | West            | South | North                     | West            | South | Cell 1                    | Cell 2 | Cell 1                                      | Cell 2            |                   |                               |                                      |                                 |
| 07/26/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps working in manual mode (sensor bad)   | Pumps are working | Good              | Minimal                       | Good                                 | Good                            |
| 08/02/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps working in manual mode (sensor bad)   | Pumps are working | Good              | Minimal                       | Good                                 | Good                            |
| 08/09/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps working in manual mode (sensor bad)   | Pumps are working | Good              | Minimal                       | Good                                 | Good                            |
| 08/16/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps working in manual mode (sensor bad)   | Pumps are working | Good              | Minimal                       | Good                                 | Good                            |
| 08/23/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps working in manual mode (sensor bad)   | Pumps are working | Good              | Minimal                       | Good                                 | Good                            |
| 08/30/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps working in manual mode (sensor bad)   | Pumps are working | Good              | Minimal                       | Good                                 | Good                            |
| 09/06/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps working in manual mode (sensor bad)   | Pumps are working | Good              | Minimal                       | Good                                 | Good                            |
| 09/13/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps working in manual mode (sensor bad)   | Pumps are working | Good              | Minimal                       | Good                                 | Need to clean around structures |
| 09/20/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps working in manual mode (sensor bad)   | Pumps are working | Good              | Minimal                       | Good                                 | Need to clean around structures |
| 09/27/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps working in manual mode (sensor bad)   | Pumps are working | Good              | Minimal                       | Good                                 | Good                            |
| 10/04/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps working in manual mode (sensor bad)   | Pumps are working | Good              | Good                          | Good                                 | Good                            |
| 10/11/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps working in manual mode (sensor bad)   | Pumps are working | Good              | Good                          | Good                                 | Good                            |
| 10/18/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps are off; using diesel auxiliary pumps | Pumps are working | Good              | Good                          | Good                                 | Good                            |
| 10/25/2021         | Good                      | Minimal erosion | Good  | Good                      | Good            | Good  | Good                      |        | Pumps are off; using diesel auxiliary pumps | Pumps are working | Good              | Good                          | Good                                 | Good                            |
| 11/01/2021         | Good                      | Good            | Good  | Good                      | Minimal erosion | Good  | OK                        | OK     | Pumps are off; using diesel auxiliary pumps | All pumps are on  | Good              | Good                          | Good                                 | Good                            |
| 11/08/2021         | Good                      | Good            | Good  | Good                      | Good            | Good  | OK                        | OK     | Pumps are off; using diesel auxiliary pumps | All pumps are on  | Good              | Good                          | Good                                 | Good                            |
| 11/15/2021         | Minimal erosion           | Good            | Good  | Good                      | Good            | Good  |                           |        | Pumps are off; using diesel auxiliary pumps | Good              | Good              | Good                          | Good                                 | Good                            |
| 11/29/2021         | Good                      | Good            | Good  | Good                      | Good            | Good  | Good                      |        | Pumps are off; using diesel auxiliary pumps |                   | Good              | Good                          | Good                                 | Good                            |

| Week of Inspection | Cell 1 Containment Dikes  |      |       |                           |      |       | Sumps at West End of CWSA |            |                   |                                    | East End Landfill | Stormwater Wet Detention Pond |                                      |            |
|--------------------|---------------------------|------|-------|---------------------------|------|-------|---------------------------|------------|-------------------|------------------------------------|-------------------|-------------------------------|--------------------------------------|------------|
|                    | Exterior Slope Conditions |      |       | Interior Slope Conditions |      |       | Water Level               |            | Pump Operations   |                                    | Slope Condition   | Slope Erosion                 | Inlet and Outlet Structure Condition | Vegetation |
|                    | North                     | West | South | North                     | West | South | Cell 1                    | Cell 2     | Cell 1            | Cell 2                             |                   |                               |                                      |            |
| 12/06/2021         | Good                      | Good | Good  | Good                      | Good | Good  | Good                      |            | All pumps off     |                                    | Good              | None                          | Good                                 | Good       |
| 12/13/2021         | Good                      | Good | Good  | Good                      | Good | Good  | Good                      |            | All pumps in Auto |                                    | Good              | None                          | Good                                 | Minimal    |
| 12/20/2021         | Good                      | Good | Good  | Good                      | Good | Good  | Good                      |            | All pumps in Auto |                                    | Good              | None                          | Good                                 | Minimal    |
| 12/27/2021         | Good                      | Good | Good  | Good                      | Good | Good  | Good                      | Some water | All pumps in Auto | All pumps off; transformer tripped | Good              | None                          | Good                                 | Minimal    |

Robert Hord performed all inspections.

| Week of Inspection | CWSA Runoff Pond Pump Stations |              |                             |          |                                |             |                                |           |
|--------------------|--------------------------------|--------------|-----------------------------|----------|--------------------------------|-------------|--------------------------------|-----------|
|                    | Groundwater Pump Alarms        |              | Groundwater Pump Operations |          | Leak Detection Pump Alarms     |             | Leak Detection Pump Operations |           |
|                    | P1                             | P4           | P1                          | P4       | P2                             | P3          | P2                             | P3        |
| 01/11/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 01/18/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 01/25/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 02/01/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 02/08/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 02/15/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 02/22/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 03/01/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 03/08/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 03/15/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 03/22/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 03/29/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 04/05/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 04/12/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 04/19/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 04/26/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 05/03/2021         | Under construction (upgrading) |              |                             |          | Under construction (upgrading) |             |                                |           |
| 05/10/2021         | No alarms in                   | No alarms in | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 05/17/2021         | No alarms in                   | No alarms in | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 05/24/2021         | No alarms in                   | No alarms in | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 05/31/2021         | No alarms in                   | No alarms in | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 06/07/2021         | No alarms in                   | No alarms in | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 06/14/2021         | No alarms in                   | No alarms in | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 07/06/2021         | No alarms in                   | No alarms in | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 07/12/2021         | No alarms in                   | No alarms in | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 07/19/2021         | Alarms in                      | Alarms in    | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 07/26/2021         | Alarms in                      | Alarms in    | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 08/02/2021         | Alarms in                      | Alarms in    | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 08/09/2021         | Alarms in                      | Alarms in    | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 08/16/2021         | Alarms in                      | Alarms in    | Good                        | Good     | No alarm in                    | No alarm in | Good                           | Good      |
| 08/23/2021         | Alarms in                      | Alarms in    | Good                        | Good     | Alarms in                      | Alarms in   | Good                           | Good      |
| 08/30/2021         | Alarms in                      | Alarms in    | Good                        | Good     | Alarms in                      | Alarms in   | Good                           | Good      |
| 09/06/2021         | Alarms in                      | Alarms in    | Good                        | Good     | Alarms in                      | Alarms in   | Good                           | Good      |
| 09/13/2021         | Alarms in                      | Alarms in    | Good                        | Good     | Alarms in                      | Alarms in   | Good                           | Good      |
| 09/20/2021         | Alarms in                      | Alarms in    | Good                        | Good     | Alarms in                      | Alarms in   | Good                           | Good      |
| 09/27/2021         | Alarms in                      | Alarms in    | Good                        | Good     | Alarms in                      | Alarms in   | Good                           | Good      |
| 10/04/2021         | Alarms in                      | Alarms in    | Good                        | Good     | Alarms in                      | Alarms in   | Good                           | Good      |
| 10/11/2021         | Alarms in                      | Alarms in    | Good                        | Good     | Alarms in                      | Alarms in   | Good                           | Good      |
| 10/18/2021         | Alarms in                      | Alarms in    | Good                        | Good     | Alarms in                      | Alarms in   | Good                           | Good      |
| 10/25/2021         | Alarms in                      | Alarms in    | Good                        | Good     | Alarms in                      | Alarms in   | Good                           | Good      |
| 11/01/2021         | UPS fault                      | Low flow     | OK                          | OK       | Low level                      | Low level   | OK                             | OK        |
| 11/08/2021         | No "UPS fault"                 | No alarms    | OK                          | Low flow | Low level and low pressure     | Low level   | ?                              | Low level |

| Week of Inspection | CWSA Runoff Pond Pump Stations |                 |                                  |      |                            |            |                                |      |
|--------------------|--------------------------------|-----------------|----------------------------------|------|----------------------------|------------|--------------------------------|------|
|                    | Groundwater Pump Alarms        |                 | Groundwater Pump Operations      |      | Leak Detection Pump Alarms |            | Leak Detection Pump Operations |      |
|                    | P1                             | P4              | P1                               | P4   | P2                         | P3         | P2                             | P3   |
| 11/15/2021         | No alarms                      | No alarms       | Failed to open connection to PLC | Good | No alarms                  | Low level  | Good                           | OK   |
| 11/29/2021         | No alarms                      | Low temperature | Failed to connect to PLC         | Auto | No alarms                  | Low level  | Auto                           | Auto |
| 12/06/2021         | No alarms                      | Low temperature | Auto: Failed to connect to PLC   | Auto | No alarms                  | Low level  | Auto                           | Auto |
| 12/13/2021         | High temperature               | No alarms       | Auto                             | Auto | No alarms                  | No alarms  | Auto                           | Auto |
| 12/20/2021         | Alarms in                      | No alarms       | Auto                             | Auto | No alarms                  | No alarms  | Auto                           | Auto |
| 12/27/2021         | No alarms                      | No alarms       | Auto                             | Auto | No alarms                  | High level | Auto                           | Auto |

UPS - Uninterruptible Power Supply  
PLC - Programmable Logic Controller  
Robert Hord performed all inspections.

## Appendix 5

### **Selected Photographs from TT-AAI Inspection**



Top of Waste in Cell 1, Looking West from Reverse Bench  
of Closed Vertical Expansion of Original CWSA



Top of Waste in Cell 1, Looking West-Northwest from Reverse Bench  
of Closed Vertical Expansion of Original CWSA



Waste Piggybacking on Western Slope of Closed Original CWSA, Looking South



Waste on Western Slope of Closed Original CWSA,  
Looking Northwest Toward Cell 2



Access Ramp to Closed Vertical Expansion of CWSA and Southeastern Corner of Cell 1, Looking Southwest



Wet Detention Pond, Looking South from Cell 1



Photovoltaic Solar Panels on Top of Closed Vertical Expansion of Original CWSA, Looking Southeast



Southern Slope of Waste Mound in Cell 1, Looking South



Perimeter Road and Ditch South of Cell 1, Looking West from  
Access Road Crossing Ditch



Monitoring Well MW-A on Southern Side of Cell 1, Looking East



Culvert Under Access Ramp Crossing Ditch, Looking Northwest Toward  
Southern Slope of Waste Mound in Cell 1



Southern Slope of Waste Mound, in Cell 1 Where It Abuts  
Closed Original CWSA, Looking North



Discharge Structures for Wet Detention Pond, Looking Southwest



Fabriform with Inlets to Wet Detention Pond in Perimeter Ditch Around Southwestern Part of Cell 1, Looking Northwest



Box Culvert in Perimeter Ditch at Southwestern Corner of Cell 1, Looking North



Leachate Pump Station in Sump #1 on the West Side of Cell 1, Looking West



Diesel Auxiliary Pump with Intake Deployed in Cell 1 and Discharge Pipeline



Closeup of Auxiliary Pump in Preceding Photograph  
Showing Connection to Discharge Pipeline



Western Slope of Waste Mound in Cell 1, Looking Northeast



Connection of Discharge Pipeline from Auxiliary Pumps  
to Leachate Force Main via Pump Station



Closeup of Piping Connection in Preceding Photograph



Northwestern Corner of Waste Mound in Cell 1, Looking Southeast



Containment Dike Between Cell 1 (Right) and Cell 2 (Left), Looking East



Cell 2, Looking North



Leachate Pump Station for Cell 2, Looking East



Perimeter Ditch West of Cell 2, Looking North from Box Culvert Crossing



Perimeter Dike/Road West of Cell 2, Looking North



Northern Slope of Waste Mound in Cell 1 and Containment Dike  
Between Cell 1 and Cell 2, Looking East



Northeastern Slope of Waste Mound in Cell 1 and Dike Between Cell 1 and Cell 2 with Temporary Culvert Under Access Ramp, Looking West



Access Ramp from West Haul Road to Western Slope of Closed Original CWSA, Looking Northwest Toward Cell 2



Articulated Dump Truck Hauling Waste Up Access Road to Western Slope of Closed Original CWSA



Closed Vertical Expansion of Original CWSA, Looking Northwest



CWSA Runoff Pond South Compartment, Looking Southeast



Control Panel for CWSA Runoff Pond Pump 1



Meters, Gauges, Valves, and Cleanout Sump for CWSA Runoff Pond Pump



Divider Dike Between CWSA Runoff Pond North and South Compartments,  
Looking East