



**APPLICATION ACCEPTED:** May 20, 2013  
**APPLICATION AMENDED:** November 8, 2013 & January 6, 2014  
**PLANNING COMMISSION:** February 27, 2014  
**PLANNING COMMISSION DECISION-ONLY:** April 3, 2014  
**BOARD OF SUPERVISORS:** May 13, 2014  
**BOARD OF SUPERVISORS DECISION-ONLY:** July 29, 2014 @ 5:00 P.M.

# County of Fairfax, Virginia

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**JULY 25, 2014**

## **STAFF REPORT ADDENDUM III**

### **SPECIAL EXCEPTION AMENDMENT SEA 80-L/V-061-02**

#### **MOUNT VERNON DISTRICT**

<b>APPLICANT:</b>	Furnace Associates, Inc.	
<b>ZONING:</b>	R-1 (Residential, 1 du/ac)	
<b>PARCELS:</b>	113-1 ((1)) part 5, 7, 8 113-3 ((1)) 1, 2, 4	
<b>ACREAGE:</b>	249.82 acres	
<b>INTENSITY:</b>	8,800 square feet	
<b>PLAN MAP:</b>	Private Recreation and Private Open Space	
<b>SE CATEGORY:</b>	Landfill and Electrical Generating Facilities (Category 2), Private Clubs (Radio Controlled Aircraft Field) (Category 3), Baseball Hitting Range and Golf Driving Range (Category 5)	
<b>PROPOSAL:</b>	To amend SEA 80-L/V-061 to extend the landfill operation end date, expand the landfill facility and to permit electrical generating facilities, a radio controlled aircraft field, a baseball hitting range, and/or golf driving range.	

#### **STAFF CONCLUSION:**

On June 17, 2014, the Board of Supervisors' approved a Framework for a Potential Compromise to give direction to the applicant and staff as to how best to address the concerns of the Board and the community with respect to this SEA application. In staff's opinion, the applicant has addressed the elements of the Framework related to the proposed closure date of 2025, removal of Overlook Ridge Park and provision of green energy uses (with the removal of the proposed wind turbines), and retention of the mixed waste facility across Furnace Road with a restriction on truck traffic similar to that of the landfill.

Mary Ann Tsai, AICP

However, rather than eliminating the berm as suggested in the Framework, the applicant proposed a mechanically stabilized earthen berm up to 25 feet in height with an average height of 22 feet, which is in excess of the 20 foot maximum height proposed in the Framework. In addition, staff is still reviewing the proposed long-term financial security related to the mechanically stabilized earthen berm.

Should the Board determine that the application meets the intent of the Framework and the special exception criteria and moves to approve this application; staff recommends approval of the development conditions in Appendix 1 and of the following waivers and modifications:

- Modification of Par. 9 of Sect. 9-205 of the Zoning Ordinance to permit improvements less than 20 years after the termination of landfill operations to permit improvements after the release of the landfill from post closure monitoring, as determined by the Virginia Department of Environmental Quality;
- Direct the Director of the Department of Public Works and Environmental Services to approve a waiver of Par. 11 of Sect. 11-102 of the Zoning Ordinance for a dustless surface;
- Waiver of the peripheral parking lot landscaping requirement pursuant to Par. 6 of Sect. 13-202 of the Zoning Ordinance;
- Waiver of the interior parking lot landscaping requirement pursuant to Par. 3 of Sect. 13-203 of the Zoning Ordinance;
- Modification of the transitional screening and waiver of the barrier requirements pursuant Sect. 13-305 of the Zoning Ordinance to permit the landscaping as shown on the SEA Plat; and
- Waiver of Par. 2 of Sect. 17-201 of the Zoning Ordinance for an 8-foot wide major paved trail along the east side of Furnace Road.

Staff recommends denial of the requested modification of the invasive species management plan requirement pursuant to Section 12-0404.2C of the Public Facilities Manual.

It should be noted that it is not the intent of staff to recommend that the Board of Supervisors, in adopting any conditions, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendation of staff; it does not reflect the position of the Board of Supervisors.

The approval of this application does not interfere with, abrogate or annul any easement, covenants, or other agreements between parties, as they may apply to the property subject to this application.

For information, contact the Zoning Evaluation Division, Department of Planning and Zoning, 12055 Government Center Parkway, Suite 801, Fairfax, Virginia 22035-5505, (703) 324-1290.



Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 48 hours advance notice. For additional information on ADA call (703) 324-1334 or TTY 711 (Virginia Relay Center).

# Special Exception Amendment

SEA 80-LV-061-02



Applicant:  
Accepted:

FURNACE ASSOCIATES, INC.  
01/06/2014- AMENDED 05/20/2013 11/08/2013

Proposed:

SEA to allow expanded operation of a construction debris landfill with no change in maximum elevation; green energy electrical generating facilities and quasi-public use - private club/public benefit associations - and/or golf driving range and/or outdoor baseball hitting range uses

Area:

249.82 AC OF LAND; DISTRICT - MOUNT VERNON

Zoning Dist Sect:

03-010403-010403-010403-010403-0104

Art 9 Group and Use:

2-01 2-03 5-39 3-07  
3-07 5-37

Located:

10001, 10201, 10209, 10215, 10219 AND 10229 FURNACE ROAD, LORTON, VA 22079

Zoning:

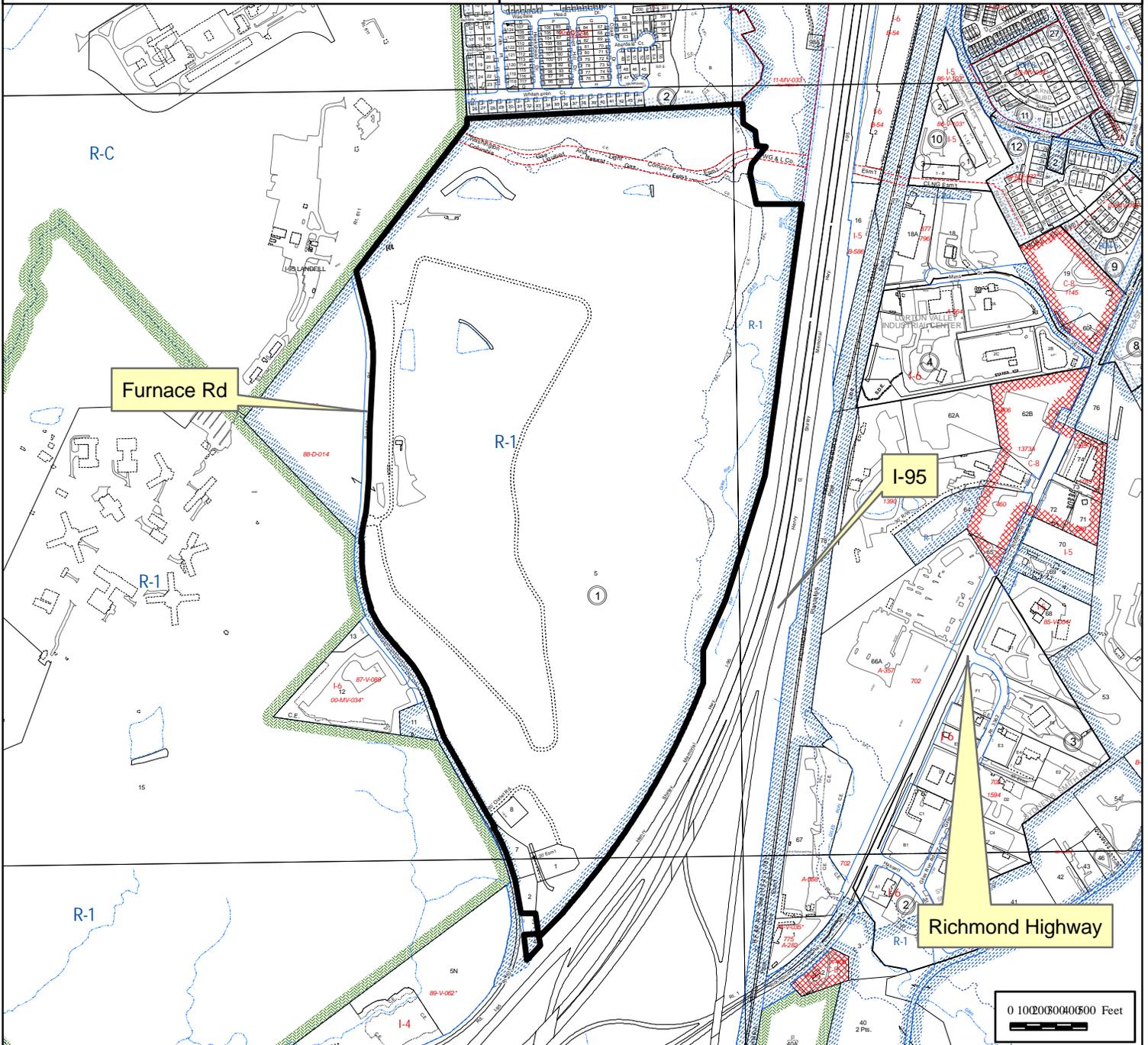
R- 1

Plan Area:

4,

Overlay Dist:

113-1- /01/ /0005 (partial) /01/ /0007 /01/ /0008  
113-3- /01/ /0001 /01/ /0002 /01/ /0004



## REASON FOR ADDENDUM III

On May 13, 2014, the Board of Supervisors held a public hearing on this application and deferred its decision to June 17, 2014. On June 17, 2014, the Board of Supervisors again deferred its decision and unanimously approved a motion on a Framework for Potential Compromise for the applicant, Furnace Associates, Inc., to consider. The Framework addressed the Board's concerns with pending Special Exception Amendment SEA 80-L/V-061-02, as previously proposed. The summary of the Board's discussion and motion on the Framework is available online from the following link: <http://www.fairfaxcounty.gov/bosclerk/summary/2014/14-06-17.pdf>.

The following are the elements of the Framework:

- A date certain closure of no later than December 31, 2025, an additional seven years of operation from Special Exception Amendment SEA 80-L/V-061;
- To address concerns regarding the long-term stability and liability of the mechanically stabilized earthen berm (or other such structures as proposed in the pending SEA), a compromise should either eliminate the berm entirely or significantly reduce its height to no greater than 20 feet, preferably less; and again, preferably no mechanically stabilized earthen berm at all;
- Modification of SEA 80-L/V-061, approved in 2007, to acknowledge that Overlook Ridge Park will not be built on top of the closed landfill. In lieu of this, the applicant will substitute green energy uses and/or community amenities;
- Wind turbines and geothermal recovery will not be part of any green energy demonstration uses. Other green energy infrastructure would be provided in areas that would not require the need for structural support on top of the landfill;
- An amendment of commitments reflected in the development conditions to be in proportion to changes in the time of operation and removal of the supporting structures;
- Withdrawal of the concurrent Proffered Condition Amendment PCA 2000-MV-034. This will allow the applicant to proceed with the development of a mixed waste reclamation facility; and
- The applicant's agreement in writing to restrict the truck traffic to and from the mixed waste reclamation facility site in line with its current commitments on the landfill site.

On June 27, 2014, a meeting was convened with the applicant, staff, Chairman Bulova, Supervisor Hyland, a representative of Supervisor Herry's office, and community representatives to discuss the Framework. As a result of this meeting, on July 14, 2014, the applicant submitted a revised application, which included a revised statement of justification, revised SEA Plat, and revised applicant proposed development conditions.

Subsequently on July 18, 2014, the applicant submitted a revised SEA Plat to correct errors identified by staff on the July 14<sup>th</sup> SEA Plat. However, the July 18<sup>th</sup> SEA Plat did

not contain complete elevations for the landfill, only spot elevations were provided. Given the complexity of the application, the applicant was requested to re-grade and provide updated elevations to clearly demonstrate that the site could be engineered to meet the proposed development conditions and the Public Facilities Manual (PFM). This level of detail and engineering typically is requested of an applicant at the time of site plan review by the Department of Public Works and Environmental Services (DPWES) and not at the time of zoning review. Given the unique nature of the site and the complexity of the application, the applicant was directed to submit under separate cover an updated grading plan with cross-sections to DPWES for their review. The applicant submitted the requested information on July 23<sup>rd</sup> along with an updated SEA Plat.

Due to the short timeframe from when the revised Plat was received on July 23, 2014, and the publication of this report, staff analysis on the revised elevations, grading, and cross-sections submitted to DPWES are not contained in this report. DPWES is continuing to review the proximity of the berm to the property line, the limits of clearing and grading, retaining walls, stormwater management basins, among other items. DPWES will provide the results of this analysis prior to the July 29<sup>th</sup> Board meeting. This addendum focuses on the applicant's revised application as it relates to the previous submission, the Framework set forth by the Board, and provides staff's review and analysis.

## **DESCRIPTION OF THE APPLICATION**

The applicant requests approval of a special exception amendment for the Lorton Landfill, an existing construction demolition debris (CDD) landfill located on approximately 250 acres in Lorton. The revised material now propose to:

- Cease all landfill disposal activities when the final debris elevation of 412 feet above sea level is reached or December 31, 2025, whichever occurs first. Previously, the applicant proposed a final debris elevation of 395 feet above sea level and staff reviewed that proposed height as part of Staff Report Addendum II (published on April 25, 2014). It is noted that the original request and approved SEA 80-L/V-061 permits a final debris elevation of 412 feet above sea level.
- Reduce the proposed berm from a maximum height of 70 feet to an overall average height of 22 feet, ranging from 17 to 25 feet with an average height no greater than 20 feet along Furnace Road.
- Delete all previously proposed wind turbines on the landfill.
- Establish solar panels. Methane and geothermal energy infrastructure are still proposed.
- Withdraw PCA 2000-MV-034 and to retain the mixed waste reclamation facility on Tax Map Parcels 113-1 ((1)) 12 and 13 with restrictions for truck access to and from the site, similar to those restrictions for the landfill site. The PCA

application proposed to remove the mixed waste reclamation use and in its place proposed solar panels as the sole use of the site.

- Continue to convey an approximately 5.2 acre private recreation area with or without recreational amenities upon acceptance by the Lorton Valley Homeowners' Association.

The applicant is no longer proposing an Observation Point on the landfill. In addition, the applicant is no longer proposing monetary contributions to the County, which is discussed further in the discussion of the Framework, with the exception that 50% of any revenue in excess of 2.5 cents per kilowatt hour that the applicant receives from the sale of electricity produced by the solar facilities would be contributed.

### **Waivers and Modifications**

The applicant requests the following waivers and modifications. No new waivers or modifications have been requested with this resubmission. However, the applicant has withdrawn two previously requested modifications, as noted.

- Modification of Par. 9 of Sect. 9-205 of the Zoning Ordinance to permit improvements less than 20 years after the termination of landfill operations;
- Waiver of Par. 11 of Sect. 11-102 of the Zoning Ordinance for a dustless surface;
- Waiver of the peripheral and interior parking lot landscaping requirement pursuant to Par. 6 of Sect. 13-202 and Par. 3 of Sect. 13-203 of the Zoning Ordinance;
- Modification of the transitional screening and waiver of the barrier requirements pursuant Sect. 13-305 of the Zoning Ordinance to permit the landscaping as shown on the SEA Plat;
- Waiver of Par. 2 of Sect. 17-201 of the Zoning Ordinance for an 8-foot wide major paved trail along the east side of Furnace Road, as shown on the Countywide Trails Plan; and
- Modification of the invasive species management plan requirement pursuant to Section 12-0404.2C of the Public Facilities Manual.

The previously requested modification of the submission requirements for a tree inventory and condition analysis and the Board's approval to permit off-site vehicular parking on Tax Map Parcels 113-1 ((1)) 12 and 13 for the Observation Point have been withdrawn.

The staff proposed development conditions, the applicant's revised statement of justification, and revised SEA Plat are provided as Appendices 1-3, respectively. The applicant's affidavit, which was previously distributed to the Board remains unchanged and is provided as Appendix 4. The staff report, Addendum I, and Addendum II are at: <http://ldsnet.fairfaxcounty.gov/ldsnet/ZAPSMain.aspx?cde=SEA&seq=4184868>

**REVISION TO THE SPECIAL EXCEPTION AMENDMENT (SEA) PLAT (Appendix 3)**

The revised SEA Plat entitled, "Lorton Green Energy Park and Debris Landfill," prepared by BC Consultants on March 22, 2013, and revised through July 23, 2014, consists of 48 sheets. The following is a summary of the changes to the SEA Plat from the SEA Plat dated April 4, 2014, which staff reviewed as part of Addendum II. As previously stated, due to the short timeframe from when the revised Plat was received on July 23<sup>rd</sup>, and the publication of this report, staff analysis on the revised elevations of the landfill are not contained in this report.

**Sheet 1 (Cover Sheet)**

- Added Sheets 34 and 35 on Stormwater Management Pond 6 and Outfall Cross Sections Pond 6, respectively.

**Sheet 2 (Phasing Plan and Tabulations)**

- Revised the Phasing Plan and areas for the solar panels.
- Added a new stormwater basin in the eastern side of the landfill.
- Removed the Observation Point from the Site Tabulations.
- Revised the maximum height from 15 feet to 25 feet for the structures proposed for Phases 5 and 6.

**Sheet 3 (General Notes and Comments)**

- Revised the final debris elevation from 395 feet to 412 above sea level and removed the wind turbines in the General Notes and revised the angle of bulk plane exhibit.

**Sheet 4 (Existing Conditions)**

- Added a tire wash facility to the Existing Structure and Distance Schedule.
- Added additional existing operational structures identified as "D" to the Plat.

**Sheets 6, 16, and 41 (Phase 1 Operations Areas, Landscaping, and Truck Circulation)**

- Removed the three wind turbines and Observation Point.
- Added a leachate tank in the southwest area of the site, which was previously proposed in Phase 2.
- Added a 625 square foot geothermal pumping station (25 feet x 25 feet) and 10 feet in height to the southeast area of the site along with its distance to the southern (428 feet) and eastern (53 feet) property lines.
- Minor revisions to the Phase 1 area as a result of the reduction to the height of the proposed berm.
- Added a temporary gravel road on the landfill and the approximate location of proposed scale house, scales, and maintenance building with its four associated parking spaces in Phases 1-5.
- Added the location of the existing scale house and the approximate location of a truck wash facility located in the western portion of the site.

- Added the approximate location of the potential methane co-generation connection to off-site facilities to the northeast site area, along Furnace Road.
- Changed the footprint of the landfill along the northeast area of the site in order to add an additional stormwater basin, which is proposed in Phase 3.
- Added a landscape buffer area consisting of evergreen trees in the southeast area of the site in Phases 1-6.
- Minor revisions to the landscape areas as a result of the reduction to the height of the proposed berm.
- Removed a possible wildflower area (at the deleted solar panel deck area).
- Revised the on-site exit circulation along the western property line and added the temporary gravel road circulation pattern.
- Added clarification to Note #3 on Sheet 41 that trucks are limited to right turn in only.
- Added Note #4 to Phases 1-4 that at the northern entrance vehicles may enter and exit. Previously, trucks were limited to right turn in-only and left turn out-only. The change is due to the applicant's proposal to allow vehicles from the mixed waste reclamation facility.
- Revised the existing and proposed structure distance schedule.
- Minor revision to the traffic circulation along the eastern boundary in Phases 1-5.

Sheets 7, 17, 26 and 42 (Phase 2 Operations Areas, Landscaping, and Truck Circulation)

- Minor revision to the Phase 2 area as a result of the reduction to the height of the proposed berm.
- Added an additional tire wash rack to the existing tire wash facility on the western side of the site.
- Minor revisions to the landscape areas as a result of the reduction to the height of the proposed berm.
- Added an additional landscape buffer consisting of evergreen trees in the western portion of the site.
- Revised Note #3 on Sheet 26, which now states that at the northern entrance trucks may turn right in-only and left turn out-only during all phases. Previously, trucks were limited to left turn out-only by the beginning of Phase 2.
- Added at the northern entrance for Phases 1-5, vehicles may enter and exit. Previously, trucks were limited to left turn out-only (no entry). The change is due to the applicant's proposal to allow vehicles from the mixed waste reclamation facility.
- Revised the on-site exit circulation along the western portion of the site.

Sheets 8, 18, and 43 (Phase 3 Operations Areas, Landscaping, and Truck Circulation)

- Minor revision to Phase 3 area as a result of the reduction to the height of the proposed berm.
- Removed the eastern stormwater aerial crossing to the northeastern stormwater management pond/Best Management Practices (BMP) facility.

- Added a new stormwater management pond/BMP facility along the eastern boundary.
- Revised to the landscape areas and bench locations.

Sheets 9, 19, and 44 (Phase 4 Operations Areas, Landscaping, and Truck Circulation)

- Solar panels are no longer proposed in Phase 4.
- Minor revision to the Phase 4 area as a result of the reduction to the height of the proposed berm.

Sheets 10, 11, 12, 13, 20, 24, and 45 (Phase 5 Operations Areas, Landscaping, and Truck Circulation)

- Added to the Phase 5 Development Activities Note 3 that at the end of Phase 5, the berm access road ramps are proposed to remain.
- Revised the area provided for the solar panels in the southern portion of the site as a result of the reduction to the height of the proposed berm.
- Revised the top elevation area of the landfill, which is now proposed to be approximately 20 acres for solar panels and active recreational uses. Previously, the top elevation area of the landfill was proposed to be 50.2 acres based on a maximum berm height of 70 feet.
- Added the electrical storage and inverter equipment to the top of the landfill and detail.
- Revised the distances to the property line from the top of the landfill.
- Revised Notes 5 and 8 on Sheets 10-12 indicating that the information shown reflects the green energy park and debris landfill generally as it will exist at the end of Phase 5 and the final debris elevation may not exceed 412 feet above sea level, respectively.
- Added spot elevations to Sheets 11-13.
- Revision to landfill elevations on Sheets 11-13,
- Revised Note 2, which previously indicated that Sheets 11-13 showed final grading but now shows preliminary grading.
- Revised landfill grading.
- Revised the notation in the Phase 5 Operations Area that the development of the solar panel energy farm is in Phases 5 and 6 (previously also proposed in Phase 4).
- Relocated landscaping to the western and southeast areas of the landfill.

Sheets 14 and 15 (Site Details)

- Revised Detail 1 showing that the maximum height of the berm as 25 feet. Previously, the proposed maximum height of the berm was 70 feet.
- Revised Detail 6 showing the top elevation area of the landfill now is proposed to be approximately 20 acres. Previously it was proposed to be 50.2 acres based on a maximum berm height of 70 feet.
- Added the typical showing the approximately 5,000 square foot concrete pad

(50 feet x 100 feet) and approximately 10 foot high enclosure fence and geothermal and electrical storage and inverter equipment (approximately 30 feet in height).

- Removed the shrubs shown in Detail 5.
- Removed the Observation Point from Details 8 and 9.

#### Sheets 22 and 23 (Landscape Details)

- Removed the proposed shrubs as part of the Typical Bench Planting and removed the shrub category from the Plant List.
- Revised the Tree Canopy Preservation calculation and revised the Total 10-Year Canopy calculation.
- Added Note under Plant List and 10-Year Tree Canopy Calculations chart.

#### Sheets 27-36 and 40 (BMP, Stormwater Management, Outfall, Overall Drainage Area)

- Revised the Chesapeake Bay and BMP, stormwater management, and outfall narratives.
- Identified limits of 100-year flood plain and 36 inch RCP outfall pipe by stormwater management pond 3.
- Revised BMP and stormwater management computations, added and revised stormwater basin volume calculations, added stormwater basin 6 and detail and revised outfall cross sections to meet the current PFM.

#### Sheet 47 (Phase 6)

- Reduced the number of golf driving range tees from 25 to 19 and the side area to be mowed from 160 feet to 140 feet in Detail 1.
- Revised the distances from the golf driving range, outdoor baseball hitting range, and radio controlled aircraft areas to the property line.
- Revised the final debris elevation from 395 feet above sea level to 412 feet and the top elevation area of the landfill from 50.2 acres to 20 acres in Note 5.
- Revised Note 12 that all Phase 6 traffic is allowed full movement at the main entrance. Previously, the applicant proposed traffic will be allowed to make left turns in and right turns out at the main entrance.

No revisions were made to Sheets 5, 21, 25, 38, and 46.

## **ANALYSIS**

### **Framework for Potential Compromise**

As previously discussed, on June 17, 2014, the Board of Supervisors approved a motion that contained the Framework for Potential Compromise in an effort to encourage the applicant to address concerns expressed by the Board and community on the proposed application. At the Board meeting, the applicant indicated a willingness to work within

the Framework. The following is a review of the applicant's response to the Framework based on the applicant's July 23, 2014 revised application and submitted materials.

***A date certain closure of no later than December 31, 2025***

The applicant is now proposing a closure date of December 31, 2025.

***To address concerns regarding the long-term stability and liability of the mechanically stabilized earthen berm (or other such structures as proposed in the pending SEA) a compromise should either eliminate the berm entirely or significantly reduce its height to no greater than 20 feet, preferably less; and again, preferably no mechanically stabilized earthen berm at all***

The proposed mechanically stabilized earthen berm (berm) is located around the perimeter of the landfill, as shown on Sheets 6-13 and 15 of the SEA Plat. The applicant proposes that the berm will not exceed a height of 25 feet with the overall average height of the berm being no more than 22 feet in height. More specifically, the applicant is proposing that the average height will be no more than 20 feet for the linear distance of approximately 4,000 feet along the Furnace Road periphery of the landfill with the lowest height in that area being no greater than 17 feet. Staff and the applicant have agreed that height of the berm is measured from the top of the outside face to the corresponding grade of the adjacent lower berm access road. The respective average height will be defined by measuring at every 100 linear feet of the respective face and averaging the heights measured. This is contained in the proposed development conditions.

The Board's motion stated its preference for the applicant to either eliminate the berm entirely or significantly reduce its height to no greater than 20 feet, preferably less and preferably no berm at all. As proposed, the average height of berm is 22 feet and a maximum height of 25 feet, which is in excess of the height proposed in the Framework.

Since the publication of the Staff Report Addendum II, a trust fund has been proposed by the applicant to address the long-term maintenance and liability of the berm. DPWES retained the services of McDonough Bolyard Peck, Inc. (MBP) to provide an independent review of the applicant's proposed financial surety on the construction cost estimate for the installation of the berm, life expectancy cost for maintaining it, and the cost to rehabilitation/reconstruct after a potential failure (all estimated costs are in net present value). Based on certain assumptions and the best information available to them, MBP provided a cost estimate of approximately \$12 million for future maintenance and rehabilitation/reconstruction costs associated with the proposed berm. MBP assumed the berm to be an average height of 22 feet and length of 2.3 miles (13,000 feet) and life expectancy of 100 years. Based on this, MBP estimated the following costs:

- The construction cost of the berm was estimated at approximately \$31 million.
- The maintenance tasks were identified based primarily on historical/market data, as well as, discussions with vendors of vegetated berm systems. The maintenance costs were estimated at approximately \$2.4 million and an additional \$3.7 million for components of the berm that require more frequent replacement.
- The rehabilitation cost in case of failure is estimated at approximately \$6 million.
- An estimated growth of the trust fund of 1.9% annually.

On July 23, 2014, staff and the applicant met to discuss this issue and to review the assumptions and cost estimate of MBP. The applicant questioned certain assumptions and provided additional information to correct others. The applicant also expressed the opinion that the MBP estimate was unreasonably conservative in a number of areas resulting in a highly excessive trust fund estimate. The applicant's consultant, Geosyntec Consultants (Geosyntec), provided the following response to support its trust fund amount, which the applicant believes is reasonable and appropriate:

- The length of the berm is 11,275 feet and not the 13,000 feet assumed by MBP.
- Annual maintenance related to leachate removal, groundwater monitoring and instrument repair are not relevant to maintenance of the berm after closure of the landfill.
- Replacement of items such as guard rail and gravel road re-grading and replacement are not needed to be done as frequently as indicated in the MBP estimate.
- MBP assumes that the entire berm would have to be replaced after 100 years. Geosyntec believes a more reasonable assumption would be that starting in Year 75, 10 percent of the berm would require replacement every 25 years and the replacement would be able to reuse the soils in the berm for a construction cost significantly below the MBP estimate.
- The applicant assumed an estimated growth of the trust fund of 4.7% annually rather than the 1.9% assumed by MBP.

The applicant maintains that a sufficient trust fund amount based on estimated life cycle costs is \$897,422. The applicant proposes in development condition 57.B. to contribute \$75,000 per year to a trust fund beginning on December 31, 2019, with the final payment ending on December 31, 2025, for a total contribution of \$525,000. Should this fund not have grown to at least \$1 million by the time applicant is released by DEQ from its post-closure bond with DEQ, applicant proposes to make a one-time payment to bring the fund amount to \$1 million as a condition of its release by DEQ.

Staff is reviewing the information submitted by the applicant with MBP to determine why there is a discrepancy between the approximately \$12 million cost estimate by MBP and the applicant's proposed \$1 million contribution for the maintenance and liability of the berm after the DEQ post-closure period ends. It is noted that the \$12 million cost estimate may be revised based upon further review by staff. This issue remains under

review and staff will be able to provide additional information at the Board meeting. A copy of the MBP and Geosyntec reports is available at the Zoning Evaluation Division of the Department of Planning and Zoning.

***Modification of Special Exception Amendment SEA 80-L/V-061, approved in 2007, to acknowledge that Overlook Ridge Park will not be built on top of the closed landfill. In lieu of this, the applicant will substitute green energy uses and/or community amenities***

In the approved development conditions for SEA 80-L/V-061, development condition 53 states in relevant part that “[t]he entire site shall be dedicated in fee simple to the FCPA within 30 days following the formal release of the landfill property owner from liability by DEQ.” The applicant proposed the deletion of this development condition, which would have required the applicant to dedicate the property to the Park Authority for public park uses. According to the Park Authority, accepting the dedication of the landfill property meant assuming the current owner’s liability for having used the site as a landfill. Upon extensive review, and subsequent to the approval of SEA 80-L/V-061, the Park Authority ultimately declined the dedication of the landfill property on May 9, 2009.

It is noted that with this application, the applicant has never offered a future conveyance of the landfill property to the County after the DEQ post-closure period nor has staff requested such conveyance. In staff’s opinion, such conveyance would raise concerns on liability, maintenance, and other issues associated with a closed landfill.

With this application, the applicant initially offered to dedicate a 17-acre parcel located on the west side of Furnace Road and to construct recreation improvements. The Park Authority declined to accept the dedication due transportation improvements that would be needed, ongoing maintenance costs associated with a park use, and numerous other recreational uses in the area. In lieu of the 17-acre site, the applicant then proposed to contribute \$3.2 million to the Park Authority for recreation facilities in the Lorton/South County area. With the most recent revision of the application, the applicant has eliminated that park contribution. In lieu of the park contribution, the applicant proposes to substitute green energy uses and/or community uses consisting of the following:

*Solar Panels*

In Phase 5, the applicant is proposing an approximately 10-acre area on the southern slope of the landfill and an approximately 20-acre area on the top elevation of the landfill for the solar panels. The solar panels or solar conversion infrastructure are proposed to produce 1.0 megawatt peak electric power capacity. The applicant proposes to retain and maintain the solar panels until the manufacturer’s stated useful life, which may extend beyond the DEQ post-closure period. It is noted that previously a 10-acre solar panel area was proposed in Phase 4 and a 50.2-acre area at the top of the landfill was proposed for the solar panels in Phase 5. The 50.2-acre area was reduced to an

approximately 20-acre area due to the reduction to the height of the berm from a maximum of 70 feet to 25 feet and the change to the final debris elevation from 395 feet to 412 feet.

There is no proposed change to the dimensions of the proposed solar panels, which contain approximately 1,250 square feet (50 feet x 25 feet) and 10 feet in height. The applicant indicates that the final size may be adjusted, depending on the prevailing technology at the time of installation, provided that the bulk regulations in the R-1 District are maintained.

An electrical storage and inverter equipment (30 feet in height) with an approximately 5,000 square feet (50 feet x 100 feet) concrete pad and approximately 10-foot tall enclosure fence is proposed in the southern area of the top of the landfill to store the geothermal and solar electricity.

Fifty percent of any revenue in excess of 2.5 cents per kilowatt hour that the applicant receives from the sale of the electricity produced by these solar facilities is proposed to be contributed to the County. The applicant has agreed to a development condition requiring a quarterly report to DPWES documenting the electricity produced.

#### Methane Gas

Methane gas recovery from the landfill is still proposed with this revision. However, because of the decrease to the height of the vegetated landfill berm, which reduces the total quantity of waste in place, instead of the equivalent of two million kilowatt hours annually of electricity, one million kilowatt hours annually of electricity (50 standard cubic feet per minute of landfill gas) is proposed for the County's use. The applicant continues to propose to pay the incremental cost of processing the methane gas so that it is suitable for combustion by industry standard co-generation infrastructure. Delivery of methane gas is proposed to begin 24 months after site plan, Non-Residential Use Permit, and DEQ approvals and to continue until the cessation of landfill activities or until December 31, 2025, or until the landfill generates less than 50 standard cubic feet per minute of the gas at which point the applicant will no longer be required to provide methane gas to the County. It is noted that the applicant is no longer proposing a payment of \$250,000 per year if the site fails to generate the proposed amount of methane gas.

#### Geothermal Energy

Previously, the applicant had not identified a user for the geothermal energy. With the revised application, the application proposes to install geothermal recovery infrastructure at the landfill with the capacity to support the mixed waste reclamation facility building on Tax Map 113-1 ((1)) 12 and 13 and other structures the applicant or others may construct on nearby land. The applicant proposes to maintain the geothermal recovery infrastructure and related access point until the DEQ post-closure period ends.

### *Failure to Provide Electrical Generating Facilities*

The applicant previously proposed that if the proposed renewable energy is not provided within the timeframe specified in the development conditions, then the applicant would be subject to providing a monetary payment for the facility. With this revision, the monetary amounts have been revised:

- Solar: From \$4.5 million to \$2.25 million.
- Methane: From \$6 million to \$3 million.
- Geothermal: \$1 million (no change).

It is noted that there is no change to the condition that in lieu of the payment stated above, the applicant may expend one or more of the penalty amounts on the installation of on-site renewable energy technology other than that technology not timely provided, subject to a Board motion authorizing such expenditure and installation. The Zoning Administrator may grant extensions to the above penalty payment periods if it is determined that the applicant diligently has pursued said necessary approvals.

***Wind turbines and geothermal recovery will not be part of any green energy demonstration uses. Other green energy infrastructure would be provided in areas that would not require the need for structural support on top of the landfill***

The applicant is no longer proposing wind turbines as part of the proposed electrical generating facilities and has deleted the wind turbines from the application. In regards to the applicant's proposed geothermal recovery use, as previously discussed, it was staff's understanding that the Board included the removal of the geothermal recovery use because the applicant had not identified a user for the geothermal energy. However, during the June 27, 2014 meeting, the applicant proposed that geothermal energy could be used at the applicant's mixed waste reclamation facility located on the west side of Furnace Road. There were no objections to this proposal at the meeting. As a result, the applicant is proposing to install geothermal recovery infrastructure at the landfill with the capacity to support the mixed waste reclamation facility building and other structures that the applicant or others may construct on nearby land.

***An amendment of commitments reflected in the development conditions to be in proportion to changes in the time of operation and removal of the supporting structures***

The applicant has committed to the provision of solar panels; whereas, previously the applicant only committed to the provision of land for the installation of solar by others. The applicant has withdrawn the proposal to contribute \$10 million to the Board for consideration for community needs in the Lorton/South County area as part of the proposal to cease landfill operations on December 31, 2034. The applicant originally proposed to contribute \$15 million when the landfill operations were proposed to cease on December 31, 2040. As previously stated, the applicant has withdrawn their

proposed \$3.2 million contribution to the Park Authority. In addition, the applicant has withdrawn the proposed contribution of \$200,000 to the Board for an educational feature that describes the renewable energy operation. The applicant also has withdrawn the offer to make improvements to the Apple Orchard Recreation Area, which consisted of clearing and grading up to three acres; providing recovered soils, crushed stone, soils, mulch and other recovered materials from the landfill to support garden activities; a one-time contribution of \$50,000 contribution to assist the management of the community garden; and soil testing. The applicant has reduced the levels of methane gas to be provided to the County and has withdrawn their monetary commitment if methane gas was not provided to certain levels. Finally, the applicant has withdrawn the offer to provide an Observation Point and tours.

***Withdrawal of the concurrent Proffered Condition Amendment  
PCA 2000-MV-034. This will allow the applicant to proceed with the development  
of a mixed waste reclamation facility***

The applicant indicated in the statement of justification that PCA 2000-MV-034 will be withdrawn prior to July 29, 2014, and the applicant indicates that a letter is forthcoming. The PCA application proposed to delete the mixed reclamation facility use as the sole use of the property and instead proposed a solar electrical generating facility use.

***The applicant's agreement in writing to restrict the truck traffic to and from the  
mixed waste reclamation facility site in line with its current commitments on the  
landfill site***

Staff proposed to the applicant a separate written agreement to restrict commercial truck traffic to and from the mixed waste reclamation facility site. The applicant concurs to this separate written agreement and is in the process of securing the appropriate authorized signature. An unsigned copy of the agreement, as drafted by the County Attorney's office, is provided as Appendix 5. Staff notes that the restrictions proposed in this agreement are also included in the proposed development conditions.

The agreement and development condition states that commercial truck traffic can only enter the mixed waste reclamation site from the south. Commercial truck traffic will be prohibited from making right-hand turns into and left-hand turns out of the site. The only exception to the prohibition on commercial truck left-hand turns out and right-hand turns in will be solely for the applicant's trucks traveling between the mixed waste reclamation facility and the landfill entrances. To facilitate the implementation of these restrictions, the applicant has agreed to the following:

- A. Posted signage indicating the traffic restrictions at each of the Property's entrances/exits.
- B. The applicant will inform all regular customers of these restrictions in writing at least twice a year and shall require its regular customers to acknowledge these restrictions in writing upon receipt.

- C. The applicant will install a video monitoring system that will record commercial vehicles accessing the facility (both entering and exiting), and such system will be routinely monitored by the applicant's staff who will actively enforce the truck access restriction during operating hours. The applicant will prohibit repeat offenders from using the site.

The terms, conditions, and covenants stated in the written agreement will run with the land and will be binding on the applicant, its employees, agents, heirs, personal representatives, successors, and assigns. Further, the written agreement would be recorded among the land records of Fairfax County.

## **ZONING ORDINANCE PROVISIONS**

Staff review of the applicable Zoning Ordinance provisions is based on Sect. 9-006 of the Zoning Ordinance, General Standards, which provides that all such uses shall satisfy the general standards for special exception uses. In addition to the general special exception standards, special exception uses have to satisfy specific use (Category 2) standards. The CDD landfill and the electrical generating facilities (solar, methane gas, and geothermal) are Category 2 uses. The following is an analysis of the Category 2 standards. Relevant analysis discussed in the staff report dated February 13, 2014, is still applicable.

### **Standards for all Category 2 Heavy Public Utility Uses (Sect. 9-204)**

*Standard 1: All uses shall comply with the lot size requirements of the zoning district in which located.*

The subject property is located in the R-1 District, which requires a minimum lot area of 36,000 square feet and a minimum lot width of 150 feet. With a lot area of approximately 250 acres and a lot width in excess of 150 feet, this standard has been satisfied.

*Standard 2: All buildings and structures, except below-ground facilities, shall comply with the bulk regulations of the zoning district in which located.*

The applicant has demonstrated that the structures (operations trailer, maintenance building, scale houses, recreation uses, solar panels, methane and geothermal infrastructure) meet the bulk regulations. This standard has been satisfied.

*Standard 3: No land or building in any district other than the I-5 or I-6 District shall be used for the storage of materials or equipment, or for the repair or servicing of vehicles or equipment, or for the parking of vehicles except those needed by employees connected with the operation of the immediate facility.*

No storage of materials, equipment, or for the repair or servicing of vehicles or equipment, or for the parking of vehicles except those needed by employees connected with the operation of the use are proposed. As such, this standard has been satisfied.

*Standard 4: It shall be conclusively established that the proposed location of the special exception use shall be necessary for the rendering of efficient utility service to consumers within the immediate area of the location.*

The CDD landfill does not provide utility service to consumers. The proposed utilities (solar, methane, and geothermal) are not intended to be a primary utility service but interim uses during the landfill operations and post-closure period. The solar and methane uses may continue into Phase 6. As such, this standard is not applicable.

*Standard 5: Before establishment, all uses, including modifications or alterations to existing uses, shall be subject to the provisions of Article 17, Site Plans.*

A development condition is proposed that the proposed uses shall be subject to the provisions of Article 17, Site Plans, of the Zoning Ordinance. In addition, prior to site plan revision approval, a geotechnical report for the proposed landfill expansion shall be submitted to DPWES for review and recommendations by the Geotechnical Review Board (GRB) and approved by DPWES. Any and all recommendations of the GRB shall be implemented; if these recommendations cannot be implemented in substantial conformance with the SEA Plat, this Special Exception Amendment shall be null and void. If the GRB determines that any portion of the review is outside of its purview, that portion shall be forwarded back to DPWES for review prior to site plan revision approval.

In addition, prior to site plan revision approval for the solar panels proposed in Phase 5, and for each of the proposed active recreational uses proposed in Phases 5 and 6 (radio controlled aircraft field, baseball hitting range(s), and/or golf driving range), each use shall require the review by the GRB and approval by DPWES. Any and all recommendations of the GRB shall be implemented. If these recommendations cannot be implemented for any of the above in Phases 5 or 6 then that use shall not be permitted.

#### **Additional Standards for Landfills (Sect. 9-205)**

The following additional special exception standards apply to all landfills that are not owned and/or operated by a public agency. The following provides a revised analysis based on the submitted application. Relevant analysis discussed in the staff report dated February 13, 2014, is still applicable.

*Additional Standard 1: No special exception for a landfill shall be valid unless the Virginia Department of Environmental Quality approves the site for landfill use.*

Since 1976, a debris landfill has been established on a portion of the subject property pursuant to the approval of a grading permit. The existing DEQ permit (Waste Permit 331) for the landfill was issued in 1981, with subsequent amendments. As previously discussed, DEQ will require a Major Permit Amendment for the applicant's proposed special exception amendment uses. This standard has been addressed.

*Additional Standard 2: Every special exception for a landfill shall be deemed to incorporate as specific conditions all other provisions of law related to such use.*

The site will be subject to the proposed development conditions, the Public Facilities Manual, the Code of Fairfax, DEQ, and other State or Federal regulations that may be applicable. This standard has been met.

*Additional Standard 3: No special exception shall be granted unless the applicant demonstrates conclusively through comprehensive soil and groundwater investigations and subsequent design methods that no unacceptable pollutants will be introduced into surface or groundwater or otherwise cause a potential health hazard.*

There is an existing development condition that requires the applicant to prepare and implement a Groundwater Monitoring Program in accordance with Virginia's Solid Waste Management Regulations. This includes testing for non-methane volatile organic compounds. This condition requires that all water test results be submitted to DEQ, the County's Health Department, and the Solid Waste Program, DPWES. The development condition also requires that if any off-site private well is adversely affected by the landfill operation, as determined by DEQ or Fairfax County, then the landfill owner must provide an adequate potable water supply to any affected property within 48-hours of being notified of such a determination. Staff is unaware of unacceptable pollutants having been introduced into the surface or groundwater or otherwise cause a potential health hazard. This standard has been addressed.

*Additional Standard 4: Every landfill shall be subject to such additional regulations as may be adopted by the Board of Supervisors. The Board may limit the type of debris and materials to be deposited and may require a degree of soil compaction adequate to support ultimate use of the property in accordance with the adopted comprehensive plan.*

The applicant has been subject to a development condition in which the subject landfill can only receive construction demolition debris materials, as defined in Section 104 of the County Code and as deemed permissible by DEQ. The applicant has agreed to a development condition that coal and fossil fuel combustion byproducts (coal ash), as defined by DEQ, and coal combustion residuals, as defined by the Environmental Protection Agency (EPA), may be accepted at the landfill if permitted by DEQ and Section 104 of the County Code and as part of a load where the coal ash is mixed in with CDD material as it leaves a source site; however, coal ash would not be permitted as the primary load from a coal fired power plant.

In addition, the applicant is still subject to a development condition on the Unauthorized Waste Control Plan, required by the Virginia Solid Waste Management Regulations, which provides the waste materials that are prohibited. No waste materials are proposed to be burned on-site. In addition, dredged soils may be deposited at the landfill so long as the dredged soils entering the site meet the DEQ definition of acceptable waste for construction, demolition, and debris landfills. With the proposed development conditions, this standard has been addressed.

*Additional Standard 5: The Board shall establish the amount, per acre and total, of surety and bond adequate to guarantee the planned restoration.*

An existing development condition is proposed to remain that requires that at the time of site plan approval, cash, bond, or a letter of credit payable to the County of Fairfax in an amount to be determined by the Urban Forest Management Division (UFMD) of DPWES is required to ensure that the approved landscaping plans are completed.

A financial assurance is required in accordance with the Financial Assurance Regulations for Solid Waste Disposal, Transfer and Treatment Facilities (9VAC20-70) to assure that owners and operators of permitted or unpermitted waste management facilities are financially responsible for the closure, post-closure care, and corrective action at their facilities. Such financial assurance is required as part of DEQ's Major Permit Amendment process in which the applicant is required to provide a financial assurance to be used in the issuance and continuation of permits to construct, operate, modify, close, or provide post-closure care and to be used in the performance of corrective actions by DEQ.

However as previously discussed, there remains a discrepancy between the approximately \$12 million cost estimate by MBP and the applicant's proposed \$1 million contribution for the maintenance and liability of the berm after the DEQ post-closure period ends. Staff is still working to resolve this issue.

*Additional Standard 6: The Director shall make an annual inspection of each landfill and shall make a report of the findings to the Board. Such report shall include the following:*

- A. A statement of whether or not the operation is in compliance with all of the requirements of the special exception.*
- B. A statement of changes which have occurred in the vicinity since the granting of the application, such as new development in the area.*
- C. A statement on the condition of roads in the area which might indicate the spillage of materials from trucks.*

The applicant is subject to an existing development condition that the site shall be made available to the Director of DPWES or representative in preparation of an annual report to the Board of Supervisors. As a result of the annual inspection, the Director of

DPWES may recommend additional restrictions and limitations on the use to the Board. This development condition is proposed to remain.

*Additional Standard 7: As a result of the annual inspection, the Director may find it necessary, for the health, safety and welfare of the general public, to recommend additional restrictions and limitations on such use. In such event, the Director shall transmit the findings to the Board which shall hold a public hearing, following notice in accordance with the provisions of Sect. 18-110.*

An existing development condition is proposed to remain that requires the site be made available to the Director of DPWES or representative in preparation of an annual report to the Board of Supervisors and additional restrictions and limitations may be recommended to the Board.

In addition, staff is proposing a development condition in which the applicant shall provide ongoing monitoring and maintenance of the proposed berm and shall fully and promptly remedy and/or repair any and all conditions that impair or affect the berm's structural stability. However as previously discussed, there remains a discrepancy between the approximately \$12 million cost estimate provided by MBP and the applicant's proposed \$1 million contribution for the maintenance and liability of the berm after the DEQ post-closure period ends. Staff is still working to resolve this issue.

*Additional Standard 8: Upon completion of operations, the land shall be left in a safe condition and in such a state that it can be used for development of the property in accordance with the adopted comprehensive plan. Further, sufficient drainage improvements shall be provided so as to prevent water pockets or erosion, and such improvements shall be designed in accordance with plans and specifications approved by the Director in conformance with the provisions of the Public Facilities Manual. Where restoration has not been accomplished, or where the restoration done was not in conformance with the approved restoration plan, the Director shall take appropriate action, including demand for performance or payment by the surety on the bond.*

With the revised application, staff has proposed a development condition that the applicant shall provide ongoing monitoring and maintenance of the landfill berm and will fully and promptly remedy and/or repair any and all conditions that impair or affect the berm's structural stability. However as previously discussed, there remains a discrepancy between the approximately \$12 million cost estimate by MBP and the applicant's proposed \$1 million contribution for the maintenance and liability of the berm after the DEQ post-closure period ends. Staff is still working to resolve this issue.

As previously discussed, to ensure that the approved landscaping plans are completed, an existing development condition is proposed to remain that requires cash, bond, or a letter of credit and payable to the County of Fairfax in an amount to be determined by the Urban Forest Management Division of DPWES at the time of site plan approval. This would ensure that where landscaping has not been accomplished, or where the

landscaping done was not in conformance with the approved landscape plan, the Director could take appropriate action, including demand for performance or payment by the surety on the bond.

With the proposed stormwater detention facilities, staff has proposed a development condition that all stormwater detention facilities shall be designed in accordance with the Public Facilities Manual (PFM) and detailed evaluation and analysis shall be provided on the site plan.

*Additional Standard 9: No improvements shall be constructed in or upon any landfill for a period of twenty (20) years after the termination of the landfill operation without the approval of the Board of Supervisors. No such approval shall be granted unless the applicant demonstrates that:*

- A. Any residual post-construction settlement will not affect the appearance or structural integrity of the proposed improvement.*
- B. The nature and extent of corrosion-producing properties, the generation and escape of combustible gases and potential fire hazards of the constituent material, considering its state of decomposition, has been provided for adequately and will not create an unsafe or hazardous condition in or around any of said proposed improvements.*

Unlike sanitary and municipal waste landfills that require an approximately 20 to 30-year post-closure period, a CDD landfill requires an approximately 10-year post-closure period. The applicant is requesting a modification to the 20-year post-closure period, which is discussed further in the Waivers and Modifications section of this report. During the post-closure period, the applicant is required to perform post-closure monitoring activities for review by DEQ. However as previously discussed, staff still is reviewing the applicant's proposed funding contribution for the trust fund.

Prior to the installation of the Phase 5 and Phase 6 active recreational uses, staff has modified an existing development condition that requires DEQ, the County's Fire and Rescue Department, and/or DPWES to review the recommendations of the applicant's design engineers, stating that the nature and extent of corrosion producing properties, the generation and escape of combustible gases and potential fire hazards of the constituent material, considering its state of decomposition, has been provided for adequately and will not create an unsafe or hazardous condition in or around any of said proposed improvements. In addition, the applicant is subject to a Gas Management Plan to monitor the control of decomposition gases from the landfill.

Further as part of the DEQ Major Permit Amendment process, DEQ reviews a landfill owner/operator's closure and post-closure plans to ensure that the landfill is properly and safely closed so that corrosion-producing properties, the generation and escape of combustible gases, and potential fire adequately has been provided for and will not

create an unsafe or hazardous condition in or around any proposed improvements. With the proposed development conditions, this standard has been addressed.

**Standards for all Category 3 and 5 Uses** (Sect. 9-304 and Sect. 9-504) and **Additional Standards for Golf Driving Ranges** (Sect. 9-529)

All proposed Category 3 special exception uses (radio controlled aircraft field) and all Category 5 special exception uses (baseball hitting range and golf driving range) needs to satisfy those specific special exception standards. In addition, the Zoning Ordinance contains additional standards for golf driving ranges. No significant changes are proposed to the proposed Category 3 and 5 uses. Staff's previous analysis on these standards remains unchanged and is located February 13, 2014, staff report at: <http://ldsnet.fairfaxcounty.gov/ldsnet/ZAPSMain.aspx?cde=SEA&seq=4184868>.

**General Standards** (Sect. 9-006)

In addition to the standards for all Category 2 (landfill and electrical generating facilities), Category 3 (radio controlled aircraft field as a private club) and Category 5 (baseball hitting range and golf driving range) uses, all proposed uses also need to satisfy the following general standards. The following provides a revised analysis based on the submitted revised application.

*General Standard 1: The proposed use at the specified location shall be in harmony with the adopted comprehensive plan.*

The landfilling operation is within Sub-unit B4 of the Lower Potomac Planning District in the Comprehensive Plan, which identifies the property as a private debris landfill and recommends that buffers should be maintained around the landfill to help mitigate any visual impact on the surrounding area. The subject property is developed with a private landfill that has operated on the subject property since the 1970s and received special exception approval from the Board of Supervisors in 1981, and the Board approved an amendment to the special exception in 2007. The applicant is proposing to continue the landfill use.

The Comprehensive Plan further recommends that when the landfill is built-out, the site ultimately should be developed with active recreational uses such as a golf course. The applicant continues to propose active recreational uses consisting of a radio controlled aircraft field, outdoor baseball hitting, and/or golf driving range. The outdoor baseball hitting range/cages may be provided during the Phase 5 DEQ post-closure period, if permitted by DEQ, or after the DEQ post-closure period ends. The golf driving range and/or radio controlled aircraft field may be provided by the applicant or lessee during Phase 6 of development either subsequent to the cessation of the electrical generating facilities or upon the end of the DEQ post-closure period.

As noted above, the Comprehensive Plan recommends that buffers should be maintained around the landfill to help mitigate any visual impact on the surrounding area. Such buffering consists of the required 50-foot wide transitional screening area along the northern property line. Within the 50-foot wide transitional screening area supplemental vegetation is proposed consisting of deciduous and evergreen trees. In addition, a reforestation area approximately 23,979 square feet is shown in the northeastern portion of the site, south of the 50-foot transitional screening. Within the reforestation area a mix of deciduous and evergreen overstory and understory trees are proposed and stabilized with a seed mix of native perennials and grasses.

In addition, along the southern property boundary from the southernmost point of the property to approximately 600 feet along the southwestern boundary and 800 feet along the southeastern boundary, a landscaped buffer of at least 100 feet is will be maintained. In any area along this boundary where a minimum of 100 feet of natural vegetation does not exist, the applicant proposes to provide additional landscaping with the review and satisfaction of the Urban Forest Management Division (UFMD). In addition with the revised application, the applicant has added additional landscape buffers along the southeast and western boundaries of the site consisting of evergreen trees.

A 2232 application was required for the proposed wind turbines and solar panels since the energy generated may be sold to the electrical grid. Staff has determined that the removal of the wind turbines from the application and the revised solar panel location does not substantially alter the Planning Commission's approval of the 2232 application. The proposed solar panels are still substantially in accord with the provision of the adopted Comprehensive Plan and satisfies the criteria of general or approximate location, character, and extent as specified in Section 15.2-2232 of the Code of Virginia. With the proposed development conditions, the proposed uses are in harmony with the Comprehensive Plan.

*General Standard 2: The proposed use shall be in harmony with the general purpose and intent of the applicable zoning district regulations.*

The proposed uses are located in the R-1 District where the purpose and intent is to provide single family detached dwellings and to allow other selected uses that are compatible with the low density residential character of the district. Other selected uses include, by special exception approval, a landfill, electrical generating plants and facilities, private clubs, and golf driving ranges, all of which are uses that the applicant is proposing as part of this application.

The applicant's proposal includes a minimal amount of structures, which would not increase the intensity of the development. When the landfill operations cease, the intensity on the site will decrease from an existing 5,000 square feet to 1,300 square feet in Phase 6 since the landfill related structures (maintenance building, scale houses, and operations trailer) will be removed.

Additionally, the proposed solar panels, methane gas and geothermal infrastructures are low intensity uses. No structures are proposed with the radio controlled aircraft field. The golf driving range and baseball hitting range are proposed to have low intensity structures. In addition, the active recreational uses are not anticipated to generate a significant amount of vehicular trips. In staff's opinion, the proposed uses are in harmony with the general purpose and intent of the R-1 District.

*General Standard 3: The proposed use shall be such that it will be harmonious with and will not adversely affect the use or development of neighboring properties in accordance with the applicable zoning district regulations and the adopted comprehensive plan. The location, size and height of buildings, structures, walls and fences, and the nature and extent of screening, buffering and landscaping shall be such that the use will not hinder or discourage the appropriate development and use of adjacent or nearby land and/or buildings or impair the value thereof.*

As previously discussed, the Board approved a landfill use for the subject property in 1981 with subsequent amendments with the most recent amendment approved in 2007. With the Board's approval, the use was deemed to be in harmony with the Comprehensive Plan. However, it is noted that the 2007 approval did not contain a vegetated berm around the perimeter of the landfill. With this application, the applicant originally proposed a vegetated landfill berm up to 70 feet in height and now has reduced the proposed height to a maximum height of 25 feet with an average height of 22 feet.

The structures associated with the landfill operations are limited to an operations trailer, a maintenance building, and scale houses and are proposed to be removed in Phase 5 when the landfilling operations cease.

The proposed methane gas and geothermal infrastructure and solar panels are proposed to be placed underground or low to the ground and fixed in their locations. Staff previously stated in the 2232 Review that the solar panels are not anticipated to create a negative visual impact to adjacent properties.

With regard to the proposed limited access Phase 6 active recreational uses (baseball hitting range, radio controlled aircraft field, and/or golf driving range), staff previously stated that they were not anticipated to adversely affect the use or development of neighboring properties since these uses are located at the top of the landfill with limited visual impact on the surrounding areas and no outdoor lighting would be permitted.

With regard to landscaping, the applicant is proposing to add an additional landscape buffer consisting of evergreen trees to buffer the southeast area and western boundary of the site to further screen the landfill from I-95 and Furnace Road, respectively. There is no change to the proposed 50-foot wide continuous transitional screening buffer of existing trees along the northern boundary of the site that will be supplemented with additional plantings. There is no change to the proposed landscaped buffer of at least

100 feet along the southern property boundary. The applicant continues to propose significant landscaping in the quantity of vegetation, tree canopy, and through the use of benches and slopes on the sides of the landfill in order to create a more natural landscaped appearance.

*General Standard 4: The proposed use shall be such that pedestrian and vehicular traffic associated with such use will not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.*

As previously discussed, with this revised application, the applicant concurs with the development condition and the separate written agreement to restrict commercial truck traffic to and from the mixed waste reclamation facility site. The development condition and written agreement stipulate that commercial trucks can only enter the site only from the south. Commercial truck traffic will be prohibited from making right-hand turns into and left-hand turns out of the site. The only exception to the prohibition on commercial truck left-hand turns out and right-hand turns in will be solely for the applicant's trucks traveling between the mixed waste reclamation facility and the landfill entrances.

There is no change to the proposed hours of operation and hours when the gates to the site would open to allow trucks to stack on-site prior to the start of landfill operation so that trucks are not stacked on Furnace Road. A development condition is proposed to remain that the gates to the landfill would open 1 ½ hours earlier Monday through Friday and 1-hour earlier on Saturday to allow trucks to queue on-site before landfill operations begin. As such, vehicular queuing on Furnace Road is not anticipated.

An existing tire wash system is proposed to remain and includes a wash rack/grate system to dislodge mud from truck tires to ensure that mud is not tracked from the landfill onto surrounding roads. Likewise, an existing development condition is proposed to remain on the tire wash system; however, additional language has been added to this development condition that should there be no unpaved area between the referenced 400 feet of pavement and Furnace Road, there would be no requirement for the gravel section and the third cattle guard.

Limited or no pedestrian traffic is anticipated with the proposed uses. The applicant is requesting a waiver of the trail requirement along Furnace Road, which was previously granted, since a trail connection on either side of the applicant's property does not exist and because of the proximity of such a trail to landfill activities. With the proposed development conditions, this standard has been addressed.

*General Standard 5: In addition to the standards which may be set forth in this Article for a particular category or use, the Board shall require landscaping and screening in accordance with the provisions of Article 13.*

The applicant made several revisions related to the landscaping of the landfill. In Phases 2 and 3, a landscape buffer consisting of evergreen trees is proposed along the

western portion of the site adjacent to the main entrance of the site and along the southwestern portion of the site, respectively, as shown on Sheets 17 and 18. In addition, the applicant is no longer proposing shrub plantings on the landscape benches of the landfill since these plantings have continuously needed to be replaced. The shrub plantings were not counted toward the overall tree canopy requirement or as part of the number of tree plantings. Not having shrub plantings on the benches of the landfill is anticipated to have minimal impact to the overall landscaping and screening of the landfill slopes. In addition, there is no change to the 10-year tree canopy calculations, as shown on Sheet 22, since shrubs were not included in the 10-year tree canopy calculations nor counted in the number of tree plantings. Staff has proposed a new development condition requiring the applicant to consult with a certified arborist, registered consulting arborist, or certified horticulturalist to manage and oversee the implementation of the landscape plan.

There is no change to the previously proposed buffers around the landfill, which to help mitigate any visual impact on the surrounding area. Such buffering consists of the required 50-foot wide transitional screening area along the northern property line with supplemental vegetation proposed consisting of deciduous and evergreen trees. In addition, a reforestation area approximately 23,979 square feet continues to be proposed in the northeastern portion of the site, south of the 50-foot transitional screening. Within the reforestation area a mix of deciduous and evergreen overstory and understory trees are proposed and stabilized with a seed mix of native perennials and grasses.

In addition, there is no change to the landscape buffer of at least 100 feet along the southern property boundary from the southernmost point of the property to approximately 600 feet along the southwestern boundary and 800 feet along the southeastern boundary. In any area along this boundary where a minimum of 100 feet of natural vegetation does not exist, the applicant continues to propose providing additional landscaping for the review and satisfaction of the Urban Forest Management Division.

Development conditions continue to be proposed that require a landscape plan, invasive species management plan, and replacement of dead plants. A development condition also remains unchanged that would require the applicant to provide cash, bond, or letter of credit and payable to the County to ensure that the appropriate landscaping plans are completed. With the proposed development conditions, this standard has been met.

*General Standard 6: Open space shall be provided in an amount equivalent to that specified for the zoning district in which the proposed use is located.*

The subject property is zoned R-1, which does not have an open space requirement. This standard is not applicable.

*General Standard 7: Adequate utility, drainage, parking, loading and other necessary facilities to serve the proposed use shall be provided. Parking and loading requirements shall be in accordance with the provisions of Article 11.*

Adequate utilities are provided to the site. As previously described, adequate stormwater drainage appears to be provided and will have to meet the Public Facilities Manual requirements. Two loading spaces are proposed in Phases 1 through 5 and no loading spaces are proposed in Phase 6.

No changes are proposed to the truck queuing and the applicant has demonstrated how on-site truck queuing would function with 24 queuing spaces proposed in Phase 1, increasing to 36 queuing spaces proposed in Phases 2 through 5. A development condition is proposed to remain that permits on-site queuing before the start of the hours of operations for the landfill to prevent queuing onto Furnace Road.

No changes are proposed to the parking required for the active recreational uses, which are required to meet the parking requirements of Article 11 of the Zoning Ordinance. This standard has been addressed.

*General Standard 8: Signs shall be regulated by the provisions of Article 12; however, the Board may impose more strict requirements for a given use than those set forth in this Ordinance.*

Article 12 of the Zoning Ordinance regulates signage and all signage shall be subject to the provisions of Article 12 of the Zoning Ordinance.

## **WAIVERS AND MODIFICATIONS**

The applicant requests the following waivers and modifications, which remain unchanged except as noted.

### **Modification of Par. 9 of Sect. 9-205 of the Zoning Ordinance to permit improvements less than 20 years after the termination of landfill operations**

Par. 9 of Sect. 9-205 of the Zoning Ordinance provides that “[n]o improvements shall be constructed in or upon any landfill for a period of 20 years after the termination of the landfill operation without the approval of the Board of Supervisors.”

The applicant has stated that Par. 9 of Sect. 9-205 more appropriately applies to municipal solid waste landfills that require a post-closure period of approximately 20-30 years. Post-closure refers to the time period following the shutdown of a waste management facility during which it is monitored by DEQ. Post-closure care requirements typically include ground water monitoring, landfill gas monitoring or

control, leachate management, and maintenance of the landfill cap. As previously discussed for CDD landfills, post-closure activities generally last approximately 10 years. As such, the applicant is requesting a waiver of the 20-year post closure period in favor of an approximately 10-year post-closure period. In 2007, the Board previously granted the modification since DEQ determines the amount of time that post-closure activities are required and would review whether any residual post-construction settlement will affect the appearance or structural integrity. As such, staff supports the modification request to permit post-closure activities after the site has been released from post closure monitoring as determined by DEQ.

#### **Waiver of Par. 11 of Sect. 11-102 of the Zoning Ordinance for a dustless surface**

Par. 11 of Sect. 11-102 of the Zoning Ordinance provides “[a]ll off-street parking areas, including aisles and driveways, except those required for single family detached dwellings, shall be constructed and maintained with a dustless surface...”

The applicant requests a waiver of Par. 11 of Sect. 11-102 and provides that by its nature, the landfill is characterized by changing internal circulation patterns due to the need to fill particular cells and volumes, weather, and other unique factors. As such, the internal roads are not proposed to be paved but are proposed as temporary gravel roads. The requested waiver would allow for on-site roads and parking areas in all phases of development to continue to remain as gravel roads and parking areas and not to be constructed of a dustless surface. Gravel, concrete, or some other recycled material has been used for the on-site roads and such material is proposed to continue to be used. Staff does not object to the dustless surface waiver request for the on-site roads and parking areas.

#### **Waiver of the peripheral and interior parking lot landscaping requirement pursuant to Par. 6 of Sect. 13-202 and Par. 3 of Sect. 13-203 of the Zoning Ordinance**

Par. 6 of Sect. 13-202 of the Zoning Ordinance provides that the Board may approve a waiver or modification of the interior parking lot landscaping requirement for an interim use or where such waiver or modification will not have any deleterious effect on adjacent properties. Par. 3 of Sect. 13-203 provides that the Board may approve a waiver or modification of the peripheral parking lot landscaping for an interim use or where such waiver or modification will not have any deleterious effect on adjacent properties.

Interior parking lot landscaping is required for any parking lot containing 20 or more spaces with interior landscaping covering not less than 5 percent of the total area of the parking lot. A total of 42 parking spaces are proposed in Phases 1-5 for landfill operations, maintenance, the baseball hitting range, and electrical generating facilities. At the end of Phase 5, after the landfilling activities have ceased, the number of parking spaces is reduced to 34 spaces. In Phase 6 with the active recreational uses, the total number of increases to 78 parking spaces.

Due to the unique nature of the proposed landfill, renewable energy, and recreational end uses, the elevation of the non-landfill uses, and the lack of public parking or travel on the site, any deleterious effect on existing or planned development on adjacent properties is not anticipated. Staff does not object to the requested waiver for interior parking lot landscaping.

Peripheral parking lot landscaping is required for any parking lot containing 20 or more spaces where transitional screening is not required. A parking lot that contains 20 or more spaces is proposed in Phase 5 and in Phase 6. Given that the uses are at the top of the landfill, UFMD has determined that no transitional screening is required since the uses are not contiguous to a property line. Staff does not object to the waiver of peripheral parking lot landscaping given that the parking lot is proposed to be on top of the landfill and is not anticipated to have a significant visual impact at an elevation of 412 feet above sea level.

### **Modification of the transitional screening and waiver of the barrier requirements pursuant Sect. 13-305 of the Zoning Ordinance**

Par. 3C of Sect. 13-303 of the Zoning Ordinance provides that Transitional Screening 3 consisting of an unbroken strip of open space a minimum of 50 feet wide is required adjacent to single family detached dwellings. The applicant is not requesting a reduction in the minimum required transitional screening width along the northern property line, but is requesting a modification to use existing, mature trees in the transitional screening area rather than removing existing vegetation and replanting with the planting schedule set forth in Par. 3C of Sect. 13-303. Staff from UFMD did not object to the retention of existing vegetation and requested supplemental understory plantings subject to UFMD approval, which is shown on the SEA Plat. A similar modification was approved by the Board in 2007, and staff does not object to this modification request.

A single family dwelling is located at the southern end of the landfill at Tax Map Parcel 113-3 ((1)) 3 and is surrounded on three sides by landfill parcels along the northern, eastern, and southern property lines. Parcel 3 is screened by approximately 100-foot minimum buffer and tree preservation area, which is proposed as a development condition to be retained. No landfill activity is proposed to take place within this buffer area. As such, the applicant requests a modification to use existing, mature trees in the required 50-foot wide transitional screening area. A similar modification was previously approved in 2007, and staff does not object to this modification request.

The applicant requests a modification of the transitional screening requirement along the western and eastern sides of the subject property to that shown on the SEA Plat. The western portion of the site is adjacent to Furnace Road, which abuts the County's I-95 Landfill in the R-C District; the applicant's vacant 17 acre parcel in the R-1 District; and the applicant's parcel in the I-6 District, which is the subject to a pending PCA application to permit a solar panel farm. The eastern side of the property consists of the

Giles Run EQC, RPA, and floodplain and is bordered by I-95. Staff does not object to the transitional screening modification request.

Additionally, the applicant requests a waiver of the barrier requirement pursuant to Paragraphs 5, 7, 11, and 12 of Sect. 13-305 of the Zoning Ordinance. These paragraphs provide that transitional screening and barriers may be waived or modified where adjoining land is designated in the adopted comprehensive plan for a use that would not require transitional screening, where the adjoining property is used for any public purpose other than a school or hospital, where the subject property abuts a railroad or interstate highway right-of-way, where the typography of the providing lot and protected lot is such that a barrier would not be effective.

Along the southern property line, Barrier D (42 to 48-inch chain link fence), Barrier E (6-foot tall wall, brick, or block), or Barrier F (6-foot high solid wood fence) is required adjacent to the existing single family dwelling located at Tax Map Parcel 113-3 ((1)) 3. This residential property is screened by an approximately 100-foot minimum buffer and tree preservation area and no landfill activity is proposed within this buffer area. The existing single family dwelling on Parcel 3 is located approximately 479 feet from the proposed berm.

Along the eastern property line, Barrier D, E, or F, as described above, is required. The property abuts I-95. Along the western property line, Barrier D, E, or F, as described above, is required. The property is adjacent to Furnace Road, which is adjacent to the County-owned I-95 Landfill in the R-C District; and the applicant's vacant 17 acre parcel in the R-1 District; and the applicant's property in the I-6 District approved for a mixed waste reclamation facility. The applicant requests a waiver of the barrier requirement along the southern, eastern, and western property lines given the buffers and distances to other uses and the non-residential character of the land located to the west and east. Staff does not object to the requested waiver of the barrier requirement.

It is noted that along the northern property line, Barrier D, E, or Barrier F is required. Barrier F currently exists along the northern property boundary and is proposed to remain.

In addition, the applicant requests a waiver of the transitional screening and barrier requirements for the proposed Phase 6 uses. UFMD determined that transitional screening is not required for the proposed Phase 6 uses since they are proposed to be located at the top of the landfill and are not contiguous or across the street from other land uses. As such, the transitional screening and barrier requirement contained in Article 13 of the Zoning Ordinance are not required.

**Waiver of the Countywide Trails Plan recommendation for an 8-foot wide major paved trail along the east side of Furnace Road**

The applicant requests a waiver of construction of an 8-foot wide major paved trail along the east side of Furnace Road, which is recommended on the County-wide Trails Plan pursuant to Par. 2 of Sect. 17-201 of the Zoning Ordinance, which provides for the need for construction of trails or walkways in accordance with the general location shown on the adopted comprehensive plan. The applicant requests the waiver because of the limited land area between Furnace Road and the proposed landfill berm and because of the on-site vehicular activity. Such recommended trail would not connect to an existing trail. The applicant has constructed a trail on the western side of Furnace Road along the frontages of Parcels 12 and 13. The Board of Supervisors previously granted the requested waiver in 2007, with the approval of the special exception amendment. Staff does not object to the waiver request.

**Modification of the invasive species management plan requirement pursuant to Section 12-0404.2C of the Public Facilities Manual (PFM)**

Section 12-0404.2C of the PFM provides that if invasive plants exist in forested areas to be preserved, then tree preservation plans and narratives shall address how invasive plants will be managed. The applicant requests this modification to ensure that the required invasive species management plan is reasonable in scope and includes reasonable and cost effective requirements that are appropriate for a larger landfill operation. The applicant has not indicated how the invasive species management plan should be modified to a reasonable scope to permit staff to evaluate this request.

In staff's opinion, certain modifications to the PFM are more appropriate at the time of site plan review than at the time of zoning approval. Typically modifications and waivers of the PFM are requested during site plan review where more detail evaluation is performed and approval is at the discretion of the Director of DPWES on whether such a modification or waiver is appropriate. In addition, in staff's opinion, an invasive species management plan is important to identifying and addressing invasive species to ensure the success that the proposed landscaping will successfully grow and will not impact the landfill cap. Such request appears to be contrary to providing successful landscape growth on the landfill and to the existing SEA approval. Specifically staff notes that the existing and proposed development conditions require the invasive species management plan to be provided for approval by the Urban Forest Management Division in order to control non-native, invasive vegetation and promote the establishment of native species. Staff would work with the applicant to develop an invasive management plan that is reasonable in scope at the time of site plan. As such, staff does not support the requested PFM modification at the time of zoning approval. This request is more appropriate at the time of site plan review.

**Modification of the submission requirements for a tree inventory and condition analysis pursuant to Section 12-0503.3 of the Public Facilities Manual**

The applicant has withdrawn the modification request.

**Board of Supervisors' approval to permit off-site vehicular parking for the Observation Point on Tax Map Parcels 113-1 ((1)) 12 and 13 pursuant to Sect. 11-102 of the Zoning Ordinance**

The applicant has withdrawn this request since the Observation Point is no longer proposed.

**CONCLUSION**

Staff finds that the applicant has addressed most of the elements of the Framework for a Potential Compromise as set forth by the Board of Supervisors at its meeting on June 17, 2014. However, the mechanically stabilized earthen berm is proposed at a maximum height of 25 feet with an average height of 22 feet. This is in excess of the 20 foot or lower height proposed by the Board as part of the Framework. As previously discussed, there remains a discrepancy between the approximately \$12 million cost estimate provided by MBP and the applicant's proposed \$1 million proposed contribution for the long-term maintenance and liability of the berm after the DEQ post-closure period ends. Staff is still reviewing the information submitted by the applicant with MBP. Finally, the applicant has agreed to a written agreement on commercial truck restriction to the mixed waste reclamation facility and is securing the necessary signature to execute this agreement.

Should the Board determine that the application meets the intent of the Framework and the special exception criteria and moves to approve this application; staff recommends approval of the development conditions in Appendix 1 and of the following waivers and modifications:

- Modification of Par. 9 of Sect. 9-205 of the Zoning Ordinance to permit improvements less than 20 years after the termination of landfill operations to permit improvements after the release of the landfill from post closure monitoring as determined by the Virginia Department of Environmental Quality;
- Direct the Director of the Department of Public Works and Environmental Services to approve a waiver of Par. 11 of Sect. 11-102 of the Zoning Ordinance for a dustless surface;
- Waiver of the peripheral parking lot landscaping requirement pursuant to Par. 6 of Sect. 13-202 of the Zoning Ordinance;
- Waiver of the interior parking lot landscaping requirement pursuant to Par. 3 of Sect. 13-203 of the Zoning Ordinance;

- Modification of the transitional screening and waiver of the barrier requirements pursuant Sect. 13-305 of the Zoning Ordinance to permit the landscaping as shown on the SEA Plat; and
- Waiver of Par. 2 of Sect. 17-201 of the Zoning Ordinance for an 8-foot wide major paved trail along the east side of Furnace Road.

Staff recommends denial of the requested modification of the invasive species management plan requirement pursuant to Section 12-0404.2C of the Public Facilities Manual.

It should be noted that it is not the intent of staff to recommend that the Board of Supervisors, in adopting any development conditions, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

The approval of this special exception amendment does not interfere with, abrogate or annul any easement, covenants, or other agreements between parties, as they may apply to the property subject to this application.

It should be further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Supervisors.

## **APPENDICES**

1. Staff Proposed Development Conditions
2. Statement of Justification
3. SEA 80-L/V-061-02 Plat
4. Affidavit
5. Commercial Truck Restriction Agreement

## PROPOSED DEVELOPMENT CONDITIONS

### SEA 80-L/V-061-02

~~April 25, 2014~~

July 25, 2014

If it is the intent of the Board of Supervisors (Board) to approve SEA 80-L/V-061-02 located at Tax Map Parcels 113-1 ((1)) part 5, 7, and 8 and 113-3 ((1)) 1, 2, and 4 (10201, 10209, 10215, 10219, and 10229 Furnace Road) to amend a special exception amendment previously approved for a landfill to permit modifications to the landfill and development conditions and the addition of electrical generating facilities (~~wind~~, solar, methane gas, and geothermal), radio controlled aircraft field, baseball hitting range(s), and/or golf driving range pursuant to Sections 3-104, 9-201, 9-301, and 9-501 of the Fairfax County Zoning Ordinance. Staff recommends that the Board condition the approval by requiring conformance with the following development conditions. These development conditions incorporate and supersede all previous development conditions. Previously approved conditions carried forward, some updated, are marked with an asterisk (\*).

1. This Special Exception Amendment (SEA) is granted for the location indicated in the application and is not transferable to other land.\*
2. This Special Exception Amendment (~~SEA~~) is granted for the location and uses outlined in the application as amended by these conditions. A revised site plan incorporating these conditions shall be submitted to the Department of Public Works and Environmental Services (DPWES).\*
3. A copy of the ~~is~~ Special Exception Amendment conditions shall be posted in a conspicuous place within the operations trailer and scale houses along with the Non-Residential Use Permit on the property of the use and be made available to all Departments of the County of Fairfax during the hours of operation of the permitted use.\*
4. Submission and approval of a site plan revision prepared in accordance with the provisions of Article 17, is required prior to the start of any landfilling activity approved as part of this Special Exception Amendment beyond that activity approved as part of SEA 80-L/V-061 on January 8, 2007 (Site Plan Revision Approval) and for the proposed electrical generating facilities (~~wind~~, solar, methane, and geothermal), radio controlled aircraft field, baseball hitting range(s), and/or golf driving range. Any site plan revision submitted pursuant to this ~~special~~ Special eException ~~a~~ AAmendment shall be in substantial conformance with the approved Special Exception Amendment Plat (SEA Plat) entitled "Lorton Green Energy Park and Debris Landfill," prepared by BC Consultants, Inc., dated March 22, 2013, as revised through ~~April 4, 2014~~ July 23, 2014, and these conditions. Minor modifications to the approved Special Exception Amendment may be permitted pursuant to Par. 4 of Sect. 9-004 of the Zoning Ordinance.

5. Prior to ~~site plan approval~~ Site Plan Revision Approval, a geotechnical report for the proposed landfill expansion to include the electrical generating facilities proposed in Phase 1, shall be submitted to DPWES for review and recommendations by the Geotechnical Review Board (GRB) ~~for its review and approval~~. Any and all recommendations of the GRB and DPWES staff within its purview shall be implemented; if these recommendations cannot be implemented in substantial conformance with the SEA Plat, this Special Exception Amendment shall be null and void. If the GRB determines that any portion of the review is outside of its purview, that portion shall be forwarded back to DPWES for review prior to ~~site plan approval~~ Site Plan Revision Approval.

Prior to ~~site plan approval~~ Site Plan Revision Approval for the solar panels proposed ~~in Phase 4, the wind turbines and/or solar panels proposed~~ in Phase 5, and for each of the proposed ~~active recreational uses proposed in Phases 5 and 6 (radio controlled aircraft field, baseball hitting range(s), and/or golf driving range)~~, each use shall require the review and approval by the Geotechnical Review Board ~~(GRB) and approval by DPWES~~. Any and all recommendations of the GRB ~~within its purview~~ shall be implemented. If these recommendations cannot be implemented for any of the above in Phases 4-5 or 6 uses then that use shall not be permitted. If the GRB determines that any portion of the review is outside of its purview, that portion shall be forwarded back to DPWES for review prior to ~~site plan approval~~ Site Plan Revision Approval.

6. No construction of the Phase 5 and Phase 6 active recreational facilities on top of the landfill, as depicted in the SEA Plat, shall take place until the applicant has been released from its post-closure monitoring and maintenance requirements by the Virginia Department of Environmental Quality (DEQ) ends and the following takes place:
- The GRB and DPWES has reviewed the recommendations of the applicant's design ~~professionals~~ engineers that states in writing that any residual post construction settlement will not affect the structural integrity of the proposed improvements; and
  - DEQ, the County's Fire and Rescue Department and/or DPWES has reviewed the recommendations of the applicant's design ~~professionals~~ engineers that states that the nature and extent of corrosion producing properties, the generation and escape of combustible gases and potential fire hazards of the constituent material, considering its state of decomposition, has been provided for adequately and will not create an unsafe or hazardous condition in or around any of said proposed improvements.
7. If any of the currently undisturbed areas of the landfill property along the northern and eastern portion of the site as depicted on the SEA Plat are proposed to be disturbed for any reason (including installation of utility lines, detention ponds, retaining walls, access roads, etc.), then, prior to any such disturbance, a tight interval (30-foot intervals between shovel tests) Phase I archaeological survey

shall be performed prior to ~~site plan approval~~ [Site Plan Revision Approval](#) for those areas proposed to be disturbed and not previously the subject of a Phase 1 archaeological survey using a scope of work approved by the Cultural Resource Management and Protection Section of the Fairfax County Park Authority (FCPA). If any archaeological resources are found by the Phase I survey and are determined to be potentially significant and disturbance of these resources cannot be avoided, then a Phase II study shall be performed to assess the significance of such resources in the Phase I study area. If deemed necessary by FCPA, a Phase III data recovery shall be performed in accordance with a scope approved by the Cultural Resource Management and Protection Section, FCPA. Draft and final archaeological reports produced as a result of the Phase I, II, and/or III studies shall be submitted for the review and approval by the Cultural Resource Management and Protection Section of FCPA.\*

8. Stormwater management and Best Management Practices (BMPs) for the subject property shall be provided ~~as depicted on the SEA Plat and in~~ conformance with the applicable Public Facilities Manual (PFM) standards [at the time of Site Plan Revision Approval](#), unless waived and/or modified by DPWES.\* [The stormwater management and BMPs design shall be in substantial conformance with that depicted on the SEA Plat.](#)
9. If deemed necessary by DPWES during ~~site plan~~ [Site Plan Revision](#) review, a Water Quality Impact Assessment (WQIA) shall be provided for encroachments into the Resource Protection Area ([RPA](#)) for the purpose of providing adequate outfall and/or redevelopment of the existing stormwater management facilities. Should any such encroachment be necessary, the limits of disturbance shall be no greater than that permitted by these development conditions, irrespective of that shown on the SEA Plat.\*

#### Conditions on the Operation of the Landfill

10. Prior to ~~site plan~~ [Site Plan Revision](#) submission, a copy of the current Closure Plan (which addresses leachate control) approved by ~~the Virginia Department of Environmental Quality (DEQ)~~ shall be provided to the Department of Planning and Zoning (DPZ), the Solid Waste Program, DPWES and the Mount Vernon District Supervisor's office. A copy of the approved Closure Plan shall be maintained on-site and made available. Amended versions of the Closure Plan shall be submitted to the above mentioned agencies and offices as revisions occur and with any subsequent site plan [revision](#) submissions. In addition, the applicant shall initiate its Major Permit Amendment with DEQ. A letter confirming said initiation shall be provided to the above referenced agencies and office. A copy of the Major Permit Amendment shall be maintained on-site and be made available upon demand. A letter confirming subsequent amendments to said Major Permit Amendment shall be submitted to the above referenced agencies and office as revisions occur and with any subsequent site plan [revision](#) submissions.

If DEQ does not approve the Major Permit Amendment, then this SEA shall be null and void.

11. The landfill shall be operated in conformance with all sections of Virginia Administrative Code (VAC) applicable to the proposed landfill operations, except as waived or modified by DEQ.\*
12. The height of the landfill prior to the installation of final cover (cap) of the landfill, vegetation ~~, and "structures"~~ as shown on the SEA Plat, shall not exceed the proposed final debris elevation, as shown on the SEA Plat. All landfill disposal activities shall cease when the final debris elevation of ~~395~~ 412 feet above sea level is reached, or December 31, ~~2034~~ 2025, whichever occurs first. Such debris height across the landfill shall not exceed the elevations depicted by the proposed topography shown on the SEA Plat, except for (i) any temporary berms or temporary stockpiles that may be required or approved by DEQ or by the Director of DPWES for operational reasons, visual screening or noise attenuation or capping and (ii) to provide adequate drainage from the center of the landfill.\*
13. The landfill shall receive only construction demolition debris (CDD) materials, as defined in Section 104 of the County Code and as deemed permissible by Federal, State and County regulations. Unacceptable landfill materials shall be prohibited on-site in accordance with the implementation of the Unauthorized Waste Control Plan as required by Virginia's Solid Waste Management Regulations and approved by DEQ. Coal and fossil fuel combustion byproducts (Coal Ash) as defined by DEQ and Coal Combustion Residuals as defined by the Environmental Protection Agency (EPA) may be accepted at the landfill if permitted by DEQ and Section 104 of the County Code and part of a load where the coal ash is mixed in the CDD material as it leaves the construction site; however, coal ash shall not be permitted as the primary load from a coal fired power plant.
14. Waste materials shall not be burned nor allowed to be burned at the site.\*
15. A liner system shall be installed in all landfill cells as required in accordance with Virginia Solid Waste Management Regulations.\*
16. A tire wash system, including a wash rack/grate system to dislodge mud on truck tires, shall be provided as depicted on the SEA Plat in order to ensure that mud is not tracked from the landfill onto the surrounding roads. The tire wash system may move from its location ~~as~~ shown on the SEA Plat. However, the tire wash system shall be in a location that will wash truck tires prior to exit from the subject property. ~~In the event that one of the access points to the subject property becomes an additional truck exit, that exit shall contain a tire wash system as described below.~~ The tire wash system shall be maintained in accordance with the manufacturer's recommendations. Adequate resources (including spare parts) shall be maintained on-site in order to ensure that any needed repairs are made within a 24-hour period. To ensure that the truck tires remain clean after

- washing, a minimum of 400 feet of pavement shall be installed immediately after the tire wash and shall be followed by gravel between said pavement area and the exit at Furnace Road. In addition, "cattle guards" shall be employed to knock off mud and water in three locations: (i) before the tire wash; (ii) immediately after the tire wash; and (iii) at the landfill exit. Should there be no unpaved area between the referenced 400 feet of pavement and Furnace Road, there shall be no requirement for the gravel section and the third cattle guard. Should the tire wash be inoperable, alternative (and equivalent) methods of removing mud from the tires shall be employed. Should said alternative methods be unavailable, no landfill materials shall be accepted until the tire wash is back in operation. Said ~~new~~ tire wash system shall be installed and in operation by December 31, 2014, unless DPWES determines that approval of a site plan revision or site plan amendment is necessary; then it shall be installed within six months after obtaining such approval.
17. Prior to landfilling in any new operational areas beyond those allowed pursuant to SEA 80-L/V-061, sediment basins meeting State and County regulations shall be provided in the Phase shown on the SEA Plat and maintained.\*
  18. All dikes, basins and stockpiles shall be seeded and mulched as soon as they are constructed.\*
  19. Litter shall be controlled by the use of litter fences at the top of the landfill on each side of the active debris dumping areas along the working face. Furthermore, a Litter Control program shall be prepared and implemented in accordance with Virginia's Solid Waste Management Regulations.\*
  20. A Groundwater Monitoring Program shall be prepared and implemented in accordance with Virginia's Solid Waste Management Regulations. A copy of all water test results, including groundwater, surface water and water quality, submitted to DEQ, shall also be submitted at the same time to the Fairfax County Health Department and the Solid Waste Program, DPWES. If, upon determination by DEQ and/or Fairfax County, any off-site private well is adversely affected by the landfill operation, the landfill owner will provide an adequate potable water supply to any affected property within 48 hours of being notified of such a determination.\*
  21. Dredge soils may be deposited at the landfill so long as the dredge soils entering the site meet the DEQ definition of acceptable waste for Construction and Demolition Debris landfills. Dredge soils from the Lake Barcroft Water District, ~~and from the~~ Lorton Station Homeowners' Association, and from the Reston Homeowners' Association, which meet the DEQ definition cited above, shall be accepted at the landfill at no cost. Dredge soils may be accepted after the cessation of landfill disposal activities and during the post-closure period in connection with landscaping improvements and installation of the final cap.\*

22. The control of decomposition gases from the landfill shall be monitored through the implementation of a Gas Management Plan in accordance with Virginia's Solid Waste Management Regulations. A coarse aggregate gas collection layer with collection pipe and gas vents above breathing zones shall be installed as part of the cap in areas that are proposed for Phase 5 and Phase 6 recreational uses on top of the landfill, including parking areas, as reviewed and approved by DPWES. All proposed structures on top of the landfill shall be open air, self-venting construction in order to prevent the buildup of landfill gases. Any closed structures, such as the leachate pump houses, shall be locked to prohibit public access.\*
23. Recycling of construction and demolition debris (and related materials) shall continue to be carried out on the landfill as an accessory use. Recycling shall include the sorting, separation, storing, and processing (such as chipping, crushing, augmenting) of debris and recyclable materials (including, without limitation, the sorting of cardboard, metal, wood and inert material).
24. A yearly contribution of \$60,000 shall be provided to the County for use by DPWES for public outreach and education associated with recycling activities applicable to construction and demolition debris. Contributions shall begin August 1, ~~2009~~2014, and shall continue annually ~~until the cessation of landfill disposal activities.\*~~ up to and including August 1, 2018, but shall thereafter cease.
25. An Emergency Contingency Plan shall be prepared and implemented in accordance with Virginia's Solid Waste Management Regulations. A list of the landfill's equipment operators and their telephone numbers shall be made available to the County's Emergency Operations Center and kept current by the landfill operator.\*
26. Landfill materials may be accepted and clearing or grading of any kind may take place on the site only between the hours of 7:00 A.M. to 5:30 P.M. Monday through Friday and between 7:00 A.M. and 3:00 PM on Saturdays. The landfill gates shall be permitted to open to customers at 5:30 A.M. Monday through Friday and at 6 A.M. on Saturdays to allow customers to queue on-site while waiting for landfill activities to commence. However, in no case shall landfill operations begin until the commencement of the normal business hours listed above. With prior approval from the Director of ~~DPWES~~the Department of Public Works and Environmental Services, or his designated agent, the applicant may operate until 5:00 P.M. on Saturday on an emergency basis. This approval shall not be granted more than ten times per calendar year. In the event of a significant community emergency, as determined in writing by the County Executive, the landfill may temporarily operate outside of normal business hours.\*
27. In an effort to solve mutual problems, the operator will work with, and will, as necessary, meet on a regular basis with the Mount Vernon Council and/or the

South County Federation and/or any other groups (such as neighboring homeowner associations) as designated by the Mount Vernon District Supervisor.\* In addition, the operator shall designate an ombudsman/community liaison within 30 days after the Board's approval of the application, with contact information (for said liaison or his replacement) available to the Chairman of the Board of Supervisors and the Mount Vernon Supervisor's office to facilitate to prompt dialogue with the community or field questions or concerns about the operations at the landfill.

28. Per Sect. 9-205 of the Zoning Ordinance, the site shall be made available to the Director of DPWES or his representative in preparation of the annual report to the Board of Supervisors. As a result of the annual inspection, the Director of DPWES may recommend additional restrictions and limitations on the use to the Board.\*

29. The vegetated landfill berm located around the perimeter of the landfill, as shown on Sheets 6-1~~30~~ and 15 of the SEA Plat, (i) shall not exceed a height of ~~70-25~~ feet; (ii) the average height shall be no more than 20 feet for the linear distance of approximately 4,000 feet along Furnace Road periphery of the landfill, with the lowest height in that area being no greater than 17 feet; (iii) and the overall average height of the berm shall be more than 22 feet.

Height shall be measured from the top of the outside face to the corresponding grade of the adjacent lower access road; the respective average height shall be determined by measuring at every 100 linear feet of the respective face and averaging the heights measured.

#### Buffering, Landscaping and Screening Conditions

- ~~29-30.~~ Irrespective of the notation on the SEA Plat that says "approximate limits of clearing and grading," the limits of clearing and grading as depicted on the SEA Plat shall be strictly adhered to. No new waste (debris) placement activity shall take place within 75 feet of the greater of the RPA or the 100-year floodplain of Giles Run. There shall be no disturbance within the RPA except in those limited areas depicted on the SEA Plat and/or as permitted under the Chesapeake Bay Preservation Ordinance.\*

- ~~30-31.~~ Notwithstanding the limitations of other development conditions, the applicant shall be permitted to encroach into the limits of clearing and grading and/or the RPA without an SEA in order to conduct environmental monitoring and/or remediation activities to ameliorate a potential environmental and/or public health hazard. Prior to the commencement of any such disturbance, the applicant shall obtain all necessary approvals from DPWES for the actions to be taken, and immediately following any such activities, shall restore the disturbed area to the extent required.\*

- ~~31-32.~~ All permanent berms located within buffer areas shall be landscaped to the

satisfaction of the Urban Forest Management Division (UFMD), DPWES. The materials used and their separation shall be in conformance with the landscaping standards of Article 13 of the Zoning Ordinance as may be applicable and as determined and approved by UFMD.\*

- | ~~32-33.~~ A 50-foot wide continuous transitional screening buffer of existing trees shall be maintained along the northern boundary of the site as depicted on Sheet 21 of the SEA Plat and subject to UFMD approval.\*
- | ~~33-34.~~ Along the southern property boundary, i.e., from the southernmost point of the property to a point approximately: (i) 600 feet along the southwestern boundary and (ii) 800 feet along the southeastern boundary, a landscaped buffer of at least 100 feet shall be maintained. In any area along this boundary where a minimum of 100 feet of natural vegetation does not exist, additional landscaping shall be planted. The landscaping shall be designed to the satisfaction of UFMD, DPWES. The materials used and their separation shall comply with the landscaping standards of Article 13 of the Zoning Ordinance, as determined by UFMD, DPWES.\*

Conditions for the Landscaping of the Property

- | 35. A landscape plan for all phases shall be prepared and submitted for the review and approval by UFMD, DPWES as part of the ~~site plan approval~~ [Site Plan Revision Approval](#) for the landfill use. The landscape plan shall provide for revegetation of the landfill as depicted on the SEA Plat and shall include suitable varieties of trees and shrubs to the satisfaction of and approval by UFMD, DPWES, consistent with that shown on the SEA Plat.\*

The applicant shall consult with a Certified Arborist, Registered Consulting Arborist, or Certified Horticulturalist to manage and oversee the implementation of the landscape plan. The landscape consultant shall perform the following monitoring duties:

The landscape consultant shall be present at the site to inspect the plant material for quality, establishment, and growth of the plants shown on the approved site plan on a monthly basis for each growing season during all five Phases of the Landscape Plan and provide an update report to UFMD for each month. The report shall assess the progress on the landscaping's establishment and growth and identify the presence of any invasive species. The growing season is defined as May 1-September 30 in a calendar year.

Prior to the initiation of the each Phase of the landscape planting a pre-construction meeting will be held with the applicant, landscape contractor(s), landscape consultant and UFMD to review the approved landscape plan.

- | ~~34-36.~~ Prior to ~~site plan approval~~ [Site Plan Revision Approval](#), an invasive species management plan shall be developed by the applicant's arborist for approval by

UFMD in order to control non-native, invasive vegetation and promote the establishment of native species. This plan shall be reviewed and approved by UFMD, DPWES.\*

- ~~35-37.~~ All landscaping installed by the applicant shall be maintained in good health by the applicant. Any such landscaping that should die within the initial three growing seasons shall be replaced by the operator/applicant within the first growing season after its death, or as determined appropriate by UFMD.\* -Any dead plants or invasive species that are identified by the landscape consultant during his or her site visits shall be removed. The applicant shall replace any dead plants shown on the approved site plan that should die within the initial three growing seasons. The applicant and/or the landscape consultant shall follow the recommendations of UFMD in accordance with the PFM for how and when the replacement plants shall be reestablished.
- ~~36-38.~~ At the time of ~~site plan approval~~ Site Plan Revision Approval, cash, bond, or a letter of credit and payable to the County of Fairfax, in an amount determined by UFMD, DPWES, shall be posted to ensure that the approved landscaping and revegetation plans are completed.\*
- ~~37-39.~~ Landscape planting shall be installed according to the landscape plan for each phase as generally depicted on the SEA Plat. Landscaping in one phase may begin before the completion of any prior phase to facilitate ongoing landfill operations. An interim vegetative cover shall be provided in disturbed areas where active landfill operations are complete and an interim landfill cap has been installed for any given area regardless of phase. Final landscaping, according to the approved landscape plan, shall be provided at the beginning of the first full planting season following the installation of the final landfill cap, subject to review and approval by UFMD. Final cover material shall be provided in accordance with DEQ design requirements, as approved in the Major Permit Amendment. Additional soil shall be placed on top of the final cover in those locations where the planting of trees is to occur, subject to the review and approval by UFMD and DEQ.
- ~~38-40.~~ Final landscaping of the landfill shall be completed within one year after the termination of landfilling operations on the property and completion of the full landfill cap.\*

#### Transportation Conditions

- ~~39-41.~~ Commercial truck traffic to and from the site shall enter the site only from the south. Commercial truck traffic shall be prohibited from making left turns into and right turns out of the landfill. The applicant shall retain its existing approved design at its main entrance and shall provide a similar restrictive design (as approved by the Virginia Department of Transportation) at its new southern entrance to accomplish this restriction. Signage shall be posted indicating the

traffic restrictions at each of the site's entrances/exits. The operator shall inform all regular customers of these restrictions in writing at least twice a year.\*

- ~~40.42.~~ Beginning with the construction and operation of its building thereon, the Applicant shall also enforce, on its Mixed Waste Reclamation Facility across Furnace Road on Tax Map Parcels 113-1-((1))-12, -13, the above same prohibition against commercial truck traffic accessing that Mixed Waste Reclamation Facility from and to the north on Furnace Road. Commercial truck traffic shall be prohibited from making right turns into and left turns out of the Mixed Waste Reclamation Facility, except to the extent commercial trucks may travel between the landfill and the Mixed Waste Reclamation Facility. Signage shall be posted indicating the traffic restrictions at the site's entrance/exit. The operator shall inform all regular customers of these restrictions in writing at least twice per year, shall impose and enforce a rule that repeat offenders will be barred from use of the facility, and will install a video system to record commercial trucks entering and exiting which will be routinely monitored by staff who will enforce this access restriction.
- ~~41.43.~~ Right-of-way to 44 feet from the existing centerline along the site's Furnace Road frontage and any ancillary easements shall be reserved for dedication to the Board of Supervisors in fee simple without encumbrances at no cost as shown on the SEA Plat. This right-of-way shall be dedicated upon demand by Fairfax County and/or the Virginia Department of Transportation (VDOT). Should this right-of-way dedication be required prior to completion of landfill activities, the raised concrete island at the main entrance to the landfill shall be permitted to remain, subject to VDOT approval.
- ~~42.44.~~ There shall be no access to the property for any landfilling purpose through the adjoining properties to the north. Pedestrian access shall not be permitted, except a trail connection to Lorton Valley may be provided in Phase 1 solely at the option of the Lorton Valley Homeowners Association, as depicted on the SEA Plat.
- ~~43.45.~~ Effective dust and gravel control measures shall be installed and maintained by the operator of the landfill. At a minimum, these measures shall include the full-time availability of a water tank truck and sweeper vehicle on-site. During construction of the vegetated earthen berm, a second water tank truck shall operate primarily in the area of berm construction.\*
- ~~44.46.~~ As depicted on the SEA Plat, ~~beginning at the end of Phase 1 of operations after the berm is completed in that area,~~ a second right turn in-only lane shall be constructed by the applicant, as approved by VDOT, as a new southern entrance-only for truck traffic travelling north on Furnace Road. No left turn into nor exits from the landfill shall be permitted at this second/southern entrance.

~~45.47.~~ The applicant shall establish a Green Energy Park (GEP) on portions of the landfill as generally shown on the SEA Plat. Said GEP shall consist of renewable energy generation facilities including ~~wind~~, geothermal infrastructure and methane gas collection systems and ~~potentially~~ solar panels, as interim uses during both the landfill operations and post-closure periods, as described below:

~~A. The applicant shall erect three wind turbines by the end of Phase 1 (the Phase 1 wind turbines, as depicted on Sheet 6 of the SEA Plat). Each of the three wind turbines to be installed on-site by the applicant during Phase 1 shall be capable of producing at least one-quarter megawatt peak of electricity. The first turbine shall be installed no later than 18 months after all necessary Federal, Virginia, and Fairfax County approvals are obtained for the wind turbine, to include, but not limited to: (i) FAA and/or other Federal, State and County approvals; (ii) all requisite DEQ approvals, including the Major Permit Amendment; (iii) all requisite County approvals such as GRB, site plan, land development and structure permits, non-DEQ bonding, and Non-RUP, have been obtained; (iv) and any other approvals not noted for the wind turbines to operate on the landfill. The above referenced approvals are collectively referred to as Necessary Approvals. Necessary Approvals shall diligently be pursued by the applicant. The second and third turbines shall be installed within 36 months after having received all Necessary Approvals.~~

~~The applicant shall install an inverter or similar device in order to convert the electricity produced by the Phase 1 wind turbines from direct current to alternate current. During Phase 2 of development, at least 75% of electricity generated by the Phase 1 wind turbines after conversion to alternate current shall be consumed on-site by landfill facilities or activities.~~

~~Fifty percent of any revenue, in excess of 2.5 cents per kilowatt hour, the applicant receives from the sale of the electricity produced shall be contributed to the County of Fairfax (the County) within 30 days after receipt of such revenue. The applicant shall submit a quarterly report to DPWES documenting the electricity produced.~~

~~For any electricity produced by the Phase 1 wind turbines and consumed on-site, the applicant shall contribute to the County 50% of the price (over 2.5 cents) it would have paid to a third party provider for the 'electricity supply service' net of taxes and distribution charges.~~

~~The applicant shall construct a foundation for the Phase 1 wind turbines, the design for which shall be reviewed and approved by DEQ. The Phase 1 wind turbines shall be operated for their useful life or until the initiation of Phase 5 landfilling activities requires their removal.~~

A. After having received all necessary Federal, Virginia, and Fairfax County approvals, to include, but not limited to: (i) Federal and State approvals; (ii) all requisite DEQ approvals, including the Major Permit Amendment; and (iii) all requisite County approvals such as GRB, site plan, land development and structure permits, non-DEQ bonding, and Non-RUP, (the above referenced approvals all collectively referred to as "Necessary Approvals," which shall diligently be pursued by the applicant), the applicant shall prepare, by the end of Phase 5, an area that can accommodate solar panels (or solar conversion infrastructure) on top of and/or on the southern slope of the landfill and provide solar panels (or solar conversion infrastructure) sufficient to produce 1.0 megawatt peak ("MWpk") electric power capacity. The applicant shall retain and maintain said solar panels until the manufacturer's stated useful life of this infrastructure ends, which may extend beyond the DEQ post-closure period.

Fifty percent of any revenue, in excess of 2.5 cents per kilowatt hour, the applicant receives from the sale of the electricity produced by these solar facilities shall be contributed to the County of Fairfax within 30 days after receipt of such revenue. The applicant shall submit a quarterly report to DPWES documenting the electricity produced.

B. The applicant also shall install a methane gas recovery system within the landfill and shall deliver to the County, at a mutually agreed upon nearby location (such as Landfill Energy Systems, Inc.), methane gas sufficient to generate the equivalent of an average of ~~one~~<sup>two</sup> million kilowatt hours annually of electricity (50 standard cubic feet per minute [SCFM] of landfill gas) with the intent that it will be used by the County to generate electricity sufficient for the normal operating needs of County-owned facility(ies) and/or for use by County-owned facilities as a fuel for operations, such as the Noman Cole Water Pollution Control Plant. The applicant shall pay the incremental cost, if any, of processing the methane gas so that it is suitable for combustion by industry-standard co-generation infrastructure. Delivery of the methane gas shall begin within ~~18-24~~ months ~~of site-plan~~<sup>after Site Plan Revision Approval</sup>, Non-RUP, and DEQ approvals for the SEA landfill expansion and continue until the cessation of landfill activities or until December 31, 20~~25~~<sup>34</sup>, or until the landfill generates less than 50 SCFM of gas, whichever occurs first after which point the applicant will no longer be required to provide the methane gas to the County. ~~Should the applicant fail to provide sufficient methane gas to generate the 2 million kilowatt hours in any given calendar year, it must pay the County \$0.125 for each equivalent kilowatt of electricity that cannot be generated due to the unsupplied methane gas, up to a maximum payment of \$250,000 in any given calendar year. After 2034, the applicant shall provide to the County 50% of the methane gas that is~~

~~recovered from the methane recovery system and will continue to do so each year until the DEQ post-closure period ends.~~

C. Within 24 months after having received all ~~necessary approvals~~ Necessary Approvals for implementation of the SEA landfill expansion ~~and approval of \_\_\_\_\_ PCA 2000-MV-034 at Tax Map Parcel 113-1 ((1)) 12 and 13 (the PCA Property), as proposed,~~ the applicant shall install a geothermal recovery infrastructure at the landfill with capacity to support the mixed waste reclamation facility building on Tax Map 113-1 ((1)) 12 and 13 and other structures the applicant or others may construct on nearby land ~~1 million square feet of building structure(s) and shall provide an access point for hook-up to such systems by the County on the boundary of the PCA Property.~~ The Applicant shall maintain the geothermal recovery infrastructure and related access point until ~~the end of the~~ DEQ post-closure period ends.

~~D. As depicted on the SEA Plat, in Phase 4, the applicant shall create an approximately 10-acre platform within the southern portion of the operations area to facilitate the provision of solar panels by the applicant and/or others.~~

~~E. By the end of Phase 5, the applicant shall have established an approximately 50.2-acre platform to facilitate future creation of a larger GEP, which may include the potential for up to 12 wind turbines (or wind infrastructure sufficient to produce at least 3 megawatt peak electric power capacity), solar panels (or solar conversion infrastructure sufficient to produce at least 7.5 megawatt peak electric power capacity) and/or more advanced technologies (referred to as the Full Green Energy Park "Full GEP") to be provided by public and/or private entities with the applicant's agreement.~~

~~F. Prior to establishment of the Phase 5 wind turbines, the applicant and/or others, as appropriate, shall file a variance request to allow the wind turbine to exceed the height limitation in the R-1 District or should the Board of Supervisors amend the Zoning Ordinance to permit an increase in height for Category 2 electrical generating facilities the applicant shall be subject to the approved Zoning Ordinance Amendment.~~

~~46. Wind turbines on the subject property shall not exceed 180 feet in height (to include the rotor blades) and shall be in general accordance with the maximum dimensions, as shown on Sheet 14 of the SEA Plat.~~ When requested by the County, the applicant shall provide to the County operational data (operating cost, productivity and revenue information) equipment specifications, and maintenance data related to its renewable energy park on an annual basis over the GEP's operating life. Said data shall be available electronically for access and use by the general public and academic bodies, and for research

48.

~~47.~~49. The following shall be paid by the applicant to the Fairfax County Board of Supervisors for the respective renewable energy generating facility not provided within the timeframe specified, in the following amounts in lieu of said facility: ~~(i) \$1,000,000 for each Phase 1 wind turbine not installed within 4 years of necessary approvals for the landfill expansion;~~ (ii) ~~\$36,000,000~~ \$36,000,000 should the methane recovery system not be ~~installed~~ established sufficient to deliver the commitment in 47.B. within 4 years ~~24 months of receiving the necessary approvals~~ after having received all Necessary Approvals for the landfill expansion- ~~(while still being committed to pay \$250,000 or to supply two million kilowatt-hours annually);~~ and (iii) \$1,000,000 should the geothermal not be installed as approved by DEQ within 4 years of ~~receiving the necessary approvals~~ after having received all Necessary Approvals for the landfill expansion-; ~~and (iii) 2.25 million dollars should the solar infrastructure not be installed as proposed in condition 47 for Phase 5.~~ In lieu of said payment penalty, the applicant may expend one or more of the penalty amounts on installation on-site of renewable energy technology other than that technology not timely provided, subject to a Board motion authorizing such expenditure and installation. Said funds shall be payable to Fairfax County with consideration toward local community needs in the Lorton/South County area and/or renewable energy infrastructure at County-owned property, as determined by the Board. The Zoning Administrator may grant extensions to the above penalty payment periods if it is determined that the applicant diligently has pursued said ~~necessary approvals~~ Necessary Approvals.

#### Other Public Contributions by the Applicant

~~48.~~— Subject to the receipt of the necessary approvals for the landfill expansion, the applicant has agreed to contribute ~~\$10,000,000~~ to the Board in installments of ~~\$500,000 each per year beginning no later than January 31, 2019, and ending no later than January 31, 2038.~~ Said funds shall be payable to Fairfax County with consideration toward local community needs in the Lorton/South County area, as determined by the Board. These funds shall be in addition to the separate recreation contribution below and the other Green Energy Program expenditures and contributions to the County committed herein by this applicant.

~~49.~~— In addition to the above contribution, the applicant shall contribute ~~\$3,200,000~~ to the Fairfax County Park Authority no later than January 31, 2019, for use for recreational facilities in the Lorton/South County area subject to all necessary approvals for the landfill expansion.

~~50.~~— As shown on Sheets 6 through 14 of the SEA Plat and subject to DEQ approval, an "Observation Point" shall be installed by the applicant during Phase 1 in the general location of the Phase 1 wind turbines and be open for visitors within ~~120 days after the three turbines begin operation.~~ The Observation Point and an ancillary shuttle service shall only be available for controlled access and remain in operation until the DEQ post-closure period ends, in accordance with the

following:

- ~~A. Access to the Observation Point shall be controlled solely by the applicant via shuttle service at no cost to visitors. The applicant may require that each visitor execute a liability waiver and release. Visitors shall park at the solar farm located on the contiguous PCA 2000-MV-034 property located at Tax Map Parcels 113-1((1)) 12 and 13 (PCA Property) and travel on-site via the applicant's shuttle service and escorted by the landowner up to the Observation Point.~~
- ~~B. The applicant shall provide a parking easement at the PCA Property for the duration of the operation of the off-site visitor parking/shuttle service area. The parking easement shall be recorded in the land records with a copy provided to DPWES.~~
- ~~C. Parking at the off-site parking area on the PCA Property shall only be permitted for the Observation Point visitors and shuttle service and for maintenance vehicles while providing maintenance to the electrical generating facilities at the PCA Property and to the PCA property.~~
- ~~D. The applicant shall provide for two established times (and duration) for tours each month from April 1 to November 30 and also allow a limited number of additional tours to be scheduled with ample notice. Each regular and additional tour may require a minimum of five (5) and may be limited to no more than twenty (20) visitors to occur. The frequency of regularly scheduled tours may be reduced upon demonstration by the applicant to the Zoning Administrator to reflect actual demand and/or current weather conditions. The applicant may implement a pre-registration system.~~
- ~~E. In addition to the above tours, the applicant shall collaborate with the County upon request by any member of the Board of Supervisors to host pre-scheduled community special events at the Observation Point. For each special event considered, the applicant shall determine whether the proposed scope, timing and number of participants may be accommodated in a safe manner that does not interfere with landfill and other operations, including the Green Energy Park. Scheduling shall be proposed through the applicant and shall be limited as to the number of special events (not to exceed three in any calendar year) and the number of participants at each, as determined by the applicant. Special events shall be restricted to the Observation Point area and occur only from April 15 to November 15, outside of landfill operating hours (unless otherwise agreed to by the applicant). The County shall be responsible for security and all other logistics. The events shall be consistent with the nature of a working landfill and the GEP, and shall not involve erection of tents or other structures, or involve food or alcohol. Each participant may be required to execute a release of liability in favor of the applicant and~~

~~shall be transported to and from the site only in shuttle-type vehicles approved by the applicant and the applicant shall not be responsible to provide such transportation. The applicant, in its sole discretion, may decline or cancel proposed special events due to safety, inclement weather and/or other conditions or concerns related to landfill and other operations. The applicant shall attempt to accommodate such special events until the DEQ post-closure period ends.~~

- ~~F. Outdoor style wooden bench seating shall be provided for up to 20 visitors, with a lectern at the head of the benches to provide for speakers.~~
  - ~~G. Tourist style telescopes (on posts) shall be provided at the east and west flanks of the Observation Point area. Actual location of each telescope could vary from edge of the seating area to ridges of the elevation.~~
  - ~~H. Information signs describing the "Green Energy Triangle," history of the area and local attractions shall be provided.~~
  - ~~I. The Observation Point shall be open for tours beginning during Phase 1 (as provided above) until the beginning of Phase 5, generally as depicted on the SEA Plat. At the beginning of Phase 5, when the Phase 1 wind turbines are removed (to permit filling and capping within the southern platform area), the Observation Point and its related features shall be relocated northward, with the understanding that its location likely will need to be further moved as Phase 5 landfill operations and capping proceed toward closure. Thus, during Phase 5 there may be gaps and transition periods (not to exceed 18 months cumulatively) during which no Observation Point shall be available due to filling, settling and capping activities.~~
- ~~51. The applicant shall provide, within 12 months of having received all necessary approvals for the Phase 1 wind turbines, \$200,000 to the Board as a contribution toward an educational feature available to the public which describes the renewable energy operations on the applicant's properties as well as those renewable energy activities occurring on neighboring County land, and provides information on renewable energy.~~
- ~~52. The applicant shall provide to the County operational data (operating cost, productivity, weather and revenue information) equipment specifications, and maintenance data related to its renewable energy park on an annual basis over the GEP's operating life. Said data shall be available electronically for access and use by the general public and academic bodies, and for research.~~
- ~~53. The applicant's consultant shall prepare a study, consistent with U.S. Fish & Wildlife Service's Land-Based Wind Energy Guidelines (Guidelines), as amended, which provides a structured, scientific process for addressing wildlife conservation concerns at all stages of land-based wind energy development and~~

~~examines migratory bird patterns, including endangered species. The Guidelines consist of 5 tiers and the applicant shall submit a report based on each tier to the Department of Planning and Zoning (DPZ) and to DPWES with Tiers 1-3 submitted, as applicable, prior to the issuance of the building permit for installation of the first Phase 1 wind turbine. Tiers 4-5 shall be submitted prior to the end of Phase 5. Should the 12 wind turbines be installed in Phase 5, the applicant or operator shall be subject to the Guidelines and shall submit reports in accordance with each of the five tiers.~~

~~54. The applicant shall demonstrate to DPZ what measures are being taken to mitigate the wind turbine's impact to birds and bats prior to the issuance of the building permit for installation of (i) the first Phase 1 wind turbine, and (ii) the first Phase 5 (full GEP) turbine. Such mitigation may include but are not limited to: smart siting, radar technology to detect when birds are approaching, raising the cut-in speed to 6 meters per second or higher, turning off the wind turbines at night, using lighting to minimize nighttime migratory bird collision, or other such means of mitigating impacts to birds and bats.~~

#### Recreational Uses

~~55.~~50. As generally depicted on Sheet 21 of the SEA Plat, in Phase 1 an approximately 5.2 acre private recreation area shall be provided by the applicant at the sole option of the Lorton Valley Homeowners' Association (LVHOA) and made available for use solely by LVHOA residents and their guests; if provided, said private recreation area and ~~land area~~ improvements described below shall be conveyed in fee simple to LVHOA. In lieu of the private recreation improvements, the LVHOA, at its sole option, may request that the applicant convey the approximate 5.2 acres designated for the recreation area but without any improvements. No later than one year after ~~approval of the site plan related to the proposed landfill expansion~~ Site Plan Revision Approval, the applicant shall provide in writing to the LVHOA its proposal to convey the 5.2 acre private recreation area and amenities or the option to convey only the 5.2 acre land area without improvements. The LVHOA shall have six months upon receipt of the applicant's letter to respond in writing to the applicant's proposed conveyance. If the LVHOA requires additional time, such additional time shall be mutually agreed upon by the applicant and LVHOA. In the event LVHOA chooses not to accept said private recreation area, then the recreation area shall not be constructed and this land shall not be conveyed, and shall remain in undisturbed open space. Regardless of conveyance, a 50-foot wide treed buffer shall be provided along the entire northern property boundary and consist of a combination of existing, mature trees and supplemental plantings shall be installed by the applicant and shall be subjected to a conservation easement prior to conveyance of the recreation area to LVHOA. Grading shall be permitted within this buffer area, as determined by UFMD, as necessary for installation of the adjacent natural surface trail and/or other improvements identified immediately below. Removal of vegetation to install improvements within the 5.2 acre private recreation area shall be in coordination with the

LVHOA and subject to the approval of UFMD. Adjacent to ~~this~~ the 50-foot wide treed buffer area, a natural trail and any off-site trail connection, exercise stations along the trail, a multi-purpose open space area, a dog park, and/or picnic tables and 5.2 acres of private recreation area shall be provided by the applicant, at the sole option of and if agreed to by the LVHOA at any time prior to ~~installation of the third Phase 1 wind turbine~~ beginning of construction of the Phase 2 berm.

~~56-51.~~ As generally depicted on Sheets 10 and 14 of the SEA Plat, an outdoor baseball hitting range/cages may be provided during the Phase 5 DEQ post-closure period, if permitted by DEQ, or after the DEQ post-closure period ends. No outdoor lighting shall be permitted.

~~57-52.~~ As generally depicted on Sheet ~~45-47~~ of the SEA Plat, and as approved by DPWES on separate site plan revision submission(s), active recreation uses consisting of baseball hitting range(s), a golf driving range and/or a radio controlled aircraft field may be provided by the applicant or lessee during Phase 6 of development either: (a) subsequent to cessation of the Green Energy Park, ~~potential 12 wind turbines and/or solar panels on the 50.2-acre platform or a portion thereof,~~ or (b) upon the end of DEQ post-closure period. There shall be no outdoor lighting permitted for these uses.

~~59. If requested, the applicant shall assist with site preparation for a 2 to 3-acre area designated in Apple Orchard Recreation Area or in the vicinity of Laurel Hill Park, for community garden use. Site preparation shall be limited solely to clearing and grading no more than three acres of land to be used for such garden. The applicant shall not be responsible for any additional support (except as specifically provided below), including any road improvements or impervious-surface improvements, construction of any structure or any other site improvements. In collaboration with the entity managing said community garden, the applicant shall provide for use at the community garden throughout the landfill's operating life, from its recycling operation, reasonable amounts of recovered soils, crushed stone, mulch and other recovered materials to support garden activities. The applicant shall make a onetime contribution of \$50,000 to the entity managing the garden operation for the materials and fees related to creation of the garden if and when all County approvals have been secured by such entity to construct and operate the garden. As may be requested by such entity, the applicant shall provide soil testing on a one-time basis for quality, composition, and drainage provided such testing occurs in conjunction with any testing the applicant carries out as part of its landfill site plan approval process. This development condition shall be null and void and the applicant shall not be bound to provide such support if the garden is not established prior to January 1, 2019.~~

~~Prior to approval of the first new site plan implementing new landfilling not previously approved prior to this SEA for all or any portion of the subject property, the property owner shall record or cause to be recorded among the~~

~~land records of the Circuit Court of Fairfax County a restrictive covenant approved by the County Attorney and applicable to the subject property which obligates the owner of the subject property to cease all landfill disposal activities no later than December 31, 2034. Said restrictive covenant shall run to the benefit of, and be enforceable by both the Board of Supervisors and by a third party, as determined by the Board of Supervisors.~~

53. The applicant shall provide ongoing monitoring and maintenance of the berm on the application property, as shown on Sheets 6-13 and 15 of the SEA Plat (hereinafter, "berm") and shall fully and promptly remedy and/or repair any and all conditions that impair or affect the berms structural stability. In addition, commencing immediately after DEQ has ceased its formal oversight of the post-closure landfill activities and has released the applicant from its DEQ Financial Assurance, the following conditions shall apply:

A. On an annual basis or such less frequent time period as may reasonably be agreed to by DPWES in writing, or at the reasonable request of DPWES due to urgent concerns about the stability of the berm, the applicant shall retain a qualified licensed professional engineer ("Applicant's Engineer") to conduct an inspection of the structural stability of the berms, and provide a report to the Director of DPWES on or before July 15th of each calendar year for annual or such less frequent inspections, and within a reasonable time after an urgent request is made by DPWES for an immediate inspection of the berm based on concerns relating to their structural stability. Such inspection report shall fully detail the results of the inspection, identify and fully describe all structural deficiencies of the berm and any concern relating thereto, and shall provide a detailed and specific corrective action plan for remedying all such deficiencies and concerns. The applicant shall immediately implement all urgent and/or immediate actions called for by the corrective action plan and shall fully and timely implement all other items in the corrective action plan on a reasonable schedule established by DPWES in writing after consultation with the Applicant's Engineer. In addition, the applicant shall implement such additional measures that are reasonably required in writing by DPWES to ensure, restore, or maintain the structural stability of the berm pursuant to a reasonable schedule established by DPWES in writing after consultation with the Applicant's Engineer.

B. Immediately upon the release of the DEQ Financial Assurance for the closure and post-closure activities relating to the landfill, the Applicant shall post with the County a performance bond, letter of credit, cash, or other form of financial security approved in writing by the Director of DPWES in an amount equal to the portion of the DEQ Financial Assurance that was allocated to the inspection and maintenance of the berm or in a reasonable amount determined by DPWES based on factors relating to the structural stability of the berm. In addition, at that time the applicant also shall take all actions that are necessary to ensure the continuation of an environmental liability

insurance policy as had been required by DEQ which provides insurance coverage in an amount equal to the amount that DEQ required for the berm prior to the cessation of DEQ's formal oversight of the landfill or in a reasonable amount determined by DPWES based on factors relating to the structural stability of the berm. Such environmental insurance policy shall name the County as an additional insured and shall be issued by an insurance company with a rating equivalent to that required by DEQ. Certificates of insurance evidencing the continuation of such coverage, and the naming of the County as an additional insured, shall be provided to the County within 14 days of a request for such verification. (Hereinafter, the financial security and the insurance coverage are collectively referred to as "County Security"). The County Security shall remain in effect for an initial period of ten (10) years. Thereafter, the County Security may be extended for successive additional five (5) year periods in the event that DPWES, in its sole discretion, identifies ongoing structural deficiencies or structural concerns with the berm. At such time as the County Security is no longer necessary, in the sole discretion of DPWES based upon one or more clean annual reports, the County Security may be released; provided, however, that the remaining obligations of this condition shall continue in full force and effect throughout the life of the berm.

C. Should the County determine at the time of Site Plan Revision Approval that it prefers the establishment of an "escrow" or "trust fund" by the applicant in lieu of the financial security referenced in paragraph 53.B. above, in such event the applicant shall establish such a fund to be held by and for the benefit of Fairfax County strictly for payment of repair costs for the berm. The applicant shall contribute \$75,000 per year to the fund beginning on December 31, 2019 and with the final payment ending on December 31, 2025, for a total contribution of \$525,000. Should this fund not have grown to at least \$1 million by the time applicant is released by DEQ from its post-closure bond with DEQ, applicant shall make a one-time payment to bring the fund amount to \$1 million as a condition of its release by DEQ.

D. The applicant agrees to and shall record among the land records of Fairfax County a covenant running with the land that expresses the ongoing responsibilities set forth in this condition to give notice to prospective purchasers. The covenant shall be drafted in a form that is acceptable to the applicant and the County Attorney's Office and shall ensure that all of the foregoing provisions of this condition are made to run with the land and are binding on the applicant, its parent company, its assigns, and all of its successors-in-title. The covenant required by this condition shall be recorded among the land records of Fairfax County prior to Site Plan Revision Approval for the application property in accordance with this SEA.

The above proposed conditions are staff recommendations and do not reflect the position of the Board of Supervisors ~~(Board)~~ unless and until adopted by the Board.

This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be responsible for obtaining the required Non-Residential Use Permit through established procedures, and this Special Exception Amendment shall not be valid until this has been accomplished.

Pursuant to Section 9-015 of the Zoning Ordinance, this ~~special-exception-amendment~~Special Exception Amendment shall automatically expire, without notice, 48 months after the date of approval unless the landfill use has been established or construction has commenced and been diligently prosecuted. Establishment of this SEA landfill use shall confirm applicant's (and successors) right to construct and/or establish the electrical-generating and active recreation facilities and uses. The Board of Supervisors may grant additional time to establish the use or to commence construction if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the ~~special-exception-amendment~~Special Exception Amendment. The request must specify the amount of additional time requested, the basis for the amount of time requested and an explanation of why additional time is required.

## **PROPOSED DEVELOPMENT CONDITIONS**

### **SEA 80-L/V-061-02**

July 25, 2014

If it is the intent of the Board of Supervisors (Board) to approve SEA 80-L/V-061-02 located at Tax Map Parcels 113-1 ((1)) part 5, 7, and 8 and 113-3 ((1)) 1, 2, and 4 (10201, 10209, 10215, 10219, and 10229 Furnace Road) to amend a special exception amendment previously approved for a landfill to permit modifications to the landfill and development conditions and the addition of electrical generating facilities (solar, methane gas, and geothermal), radio controlled aircraft field, baseball hitting range(s), and/or golf driving range pursuant to Sections 3-104, 9-201, 9-301, and 9-501 of the Fairfax County Zoning Ordinance. Staff recommends that the Board condition the approval by requiring conformance with the following development conditions. These development conditions incorporate and supersede all previous development conditions. Previously approved conditions carried forward, some updated, are marked with an asterisk (\*).

1. This Special Exception Amendment (SEA) is granted for the location indicated in the application and is not transferable to other land.\*
2. This Special Exception Amendment is granted for the location and uses outlined in the application as amended by these conditions. A revised site plan incorporating these conditions shall be submitted to the Department of Public Works and Environmental Services (DPWES).\*
3. A copy of the Special Exception Amendment conditions shall be posted in a conspicuous place within the operations trailer and scale houses along with the Non-Residential Use Permit on the property of the use and be made available to all Departments of the County of Fairfax during the hours of operation of the permitted use.\*
4. Submission and approval of a site plan revision prepared in accordance with the provisions of Article 17, is required prior to the start of any landfilling activity approved as part of this Special Exception Amendment beyond that activity approved as part of SEA 80-L/V-061 on January 8, 2007 (Site Plan Revision Approval) and for the proposed electrical generating facilities (solar, methane, and geothermal), radio controlled aircraft field, baseball hitting range(s), and/or golf driving range. Any site plan revision submitted pursuant to this Special Exception Amendment shall be in substantial conformance with the approved Special Exception Amendment Plat (SEA Plat) entitled "Lorton Green Energy Park and Debris Landfill," prepared by BC Consultants, Inc., dated March 22, 2013, as revised through July 23, 2014, and these conditions. Minor modifications to the approved Special Exception Amendment may be permitted pursuant to Par. 4 of Sect. 9-004 of the Zoning Ordinance.

5. Prior to Site Plan Revision Approval, a geotechnical report for the proposed landfill expansion shall be submitted to DPWES for review and recommendations by the Geotechnical Review Board (GRB). Any and all recommendations of the GRB and DPWES staff shall be implemented; if these recommendations cannot be implemented in substantial conformance with the SEA Plat, this Special Exception Amendment shall be null and void. If the GRB determines that any portion of the review is outside of its purview, that portion shall be forwarded back to DPWES for review prior to Site Plan Revision Approval.

Prior to Site Plan Revision Approval for the solar panels proposed in Phase 5, and for each of the proposed active recreational uses proposed in Phases 5 and 6 (radio controlled aircraft field, baseball hitting range(s), and/or golf driving range), each use shall require the review and approval by the Geotechnical Review Board and approval by DPWES. Any and all recommendations of the GRB shall be implemented. If these recommendations cannot be implemented for any of the above in Phases 5 or 6 then that use shall not be permitted. If the GRB determines that any portion of the review is outside of its purview, that portion shall be forwarded back to DPWES for review prior to Site Plan Revision Approval.

6. No construction of the Phase 5 and Phase 6 active recreational facilities on top of the landfill, as depicted in the SEA Plat, shall take place until the applicant has been released from its post-closure monitoring and maintenance requirements by the Virginia Department of Environmental Quality (DEQ) ends and the following takes place:
  - The GRB and DPWES have reviewed the recommendations of the applicant's design engineers that states in writing that any residual post construction settlement will not affect the structural integrity of the proposed improvements; and
  - DEQ, the County's Fire and Rescue Department and/or DPWES have reviewed the recommendations of the applicant's design engineers that states that the nature and extent of corrosion producing properties, the generation and escape of combustible gases and potential fire hazards of the constituent material, considering its state of decomposition, has been provided for adequately and will not create an unsafe or hazardous condition in or around any of said proposed improvements.
7. If any of the currently undisturbed areas of the landfill property along the northern and eastern portion of the site as depicted on the SEA Plat are proposed to be disturbed for any reason (including installation of utility lines, detention ponds, retaining walls, access roads, etc.), then, prior to any such disturbance, a tight interval (30-foot intervals between shovel tests) Phase I archaeological survey shall be performed prior to Site Plan Revision Approval for those areas proposed to be disturbed and not previously the subject of a Phase 1 archaeological survey using a scope of work approved by the Cultural Resource Management and

Protection Section of the Fairfax County Park Authority (FCPA). If any archaeological resources are found by the Phase I survey and are determined to be potentially significant and disturbance of these resources cannot be avoided, then a Phase II study shall be performed to assess the significance of such resources in the Phase I study area. If deemed necessary by FCPA, a Phase III data recovery shall be performed in accordance with a scope approved by the Cultural Resource Management and Protection Section, FCPA. Draft and final archaeological reports produced as a result of the Phase I, II, and/or III studies shall be submitted for the review and approval by the Cultural Resource Management and Protection Section of FCPA.\*

8. Stormwater management and Best Management Practices (BMPs) for the subject property shall be provided in conformance with the applicable Public Facilities Manual (PFM) standards at the time of Site Plan Revision Approval, unless waived and/or modified by DPWES. The stormwater management and BMPs design shall be in substantial conformance with that depicted on the SEA Plat.
9. If deemed necessary by DPWES during Site Plan Revision review, a Water Quality Impact Assessment (WQIA) shall be provided for encroachments into the Resource Protection Area (RPA) for the purpose of providing adequate outfall and/or redevelopment of the existing stormwater management facilities. Should any such encroachment be necessary, the limits of disturbance shall be no greater than that permitted by these development conditions, irrespective of that shown on the SEA Plat.\*

#### Conditions on the Operation of the Landfill

10. Prior to Site Plan Revision submission, a copy of the current Closure Plan (which addresses leachate control) approved by DEQ shall be provided to the Department of Planning and Zoning (DPZ), the Solid Waste Program DPWES and the Mount Vernon District Supervisor's office. A copy of the approved Closure Plan shall be maintained on-site and made available. Amended versions of the Closure Plan shall be submitted to the above mentioned agencies and offices as revisions occur and with any subsequent site plan revision submissions. In addition, the applicant shall initiate its Major Permit Amendment with DEQ. A letter confirming said initiation shall be provided to the above referenced agencies and office. A copy of the Major Permit Amendment shall be maintained on-site and be made available upon demand. A letter confirming subsequent amendments to said Major Permit Amendment shall be submitted to the above referenced agencies and office as revisions occur and with any subsequent site plan revision submissions.

If DEQ does not approve the Major Permit Amendment, then this SEA shall be null and void.

11. The landfill shall be operated in conformance with all sections of Virginia Administrative Code (VAC) applicable to the proposed landfill operations, except as waived or modified by DEQ.\*
12. The height of the landfill prior to the installation of final cover (cap) of the landfill, vegetation as shown on the SEA Plat, shall not exceed the proposed final debris elevation, as shown on the SEA Plat. All landfill disposal activities shall cease when the final debris elevation of 412 feet above sea level is reached, or December 31, 2025, whichever occurs first. Such debris height across the landfill shall not exceed the elevations depicted by the proposed topography shown on the SEA Plat, except for (i) any temporary berms or temporary stockpiles that may be required or approved by DEQ or by the Director of DPWES for operational reasons, visual screening or noise attenuation or capping and (ii) to provide adequate drainage from the center of the landfill.\*
13. The landfill shall receive only construction demolition debris (CDD) materials, as defined in Section 104 of the County Code and as deemed permissible by Federal, State and County regulations. Unacceptable landfill materials shall be prohibited on-site in accordance with the implementation of the Unauthorized Waste Control Plan as required by Virginia's Solid Waste Management Regulations and approved by DEQ. Coal and fossil fuel combustion byproducts (Coal Ash) as defined by DEQ and Coal Combustion Residuals as defined by the Environmental Protection Agency (EPA) may be accepted at the landfill if permitted by DEQ and Section 104 of the County Code and part of a load where the coal ash is mixed in the CDD material as it leaves the construction site; however, coal ash shall not be permitted as the primary load from a coal fired power plant.
14. Waste materials shall not be burned nor allowed to be burned at the site.\*
15. A liner system shall be installed in all landfill cells as required in accordance with Virginia Solid Waste Management Regulations.\*
16. A tire wash system, including a wash rack/grate system to dislodge mud on truck tires, shall be provided as depicted on the SEA Plat in order to ensure that mud is not tracked from the landfill onto the surrounding roads. The tire wash system may move from its location shown on the SEA Plat. However, the tire wash system shall be in a location that will wash truck tires prior to exit from the subject property. The tire wash system shall be maintained in accordance with the manufacturer's recommendations. Adequate resources (including spare parts) shall be maintained on-site in order to ensure that any needed repairs are made within a 24-hour period. To ensure that the truck tires remain clean after washing, a minimum of 400 feet of pavement shall be installed immediately after the tire wash and shall be followed by gravel between said pavement area and the exit at Furnace Road. In addition, "cattle guards" shall be employed to knock off mud and water in three locations: (i) before the tire wash; (ii) immediately after the tire wash; and (iii) at the landfill exit. Should there be no unpaved area

between the referenced 400 feet of pavement and Furnace Road, there shall be no requirement for the gravel section and the third cattle guard. Should the tire wash be inoperable, alternative (and equivalent) methods of removing mud from the tires shall be employed. Should said alternative methods be unavailable, no landfill materials shall be accepted until the tire wash is back in operation. Said tire wash system shall be installed and in operation by December 31, 2014, unless DPWES determines that approval of a site plan revision or site plan amendment is necessary; then it shall be installed within six months after obtaining such approval.

17. Prior to landfilling in any new operational areas beyond those allowed pursuant to SEA 80-L/V-061, sediment basins meeting State and County regulations shall be provided in the Phase shown on the SEA Plat and maintained.\*
18. All dikes, basins and stockpiles shall be seeded and mulched as soon as they are constructed.\*
19. Litter shall be controlled by the use of litter fences at the top of the landfill on each side of the active debris dumping areas along the working face. Furthermore, a Litter Control program shall be prepared and implemented in accordance with Virginia's Solid Waste Management Regulations.\*
20. A Groundwater Monitoring Program shall be prepared and implemented in accordance with Virginia's Solid Waste Management Regulations. A copy of all water test results, including groundwater, surface water and water quality, submitted to DEQ, shall also be submitted at the same time to the Fairfax County Health Department and the Solid Waste Program, DPWES. If, upon determination by DEQ and/or Fairfax County, any off-site private well is adversely affected by the landfill operation, the landfill owner will provide an adequate potable water supply to any affected property within 48 hours of being notified of such a determination.\*
21. Dredge soils may be deposited at the landfill so long as the dredge soils entering the site meet the DEQ definition of acceptable waste for Construction and Demolition Debris landfills. Dredge soils from the Lake Barcroft Water District, Lorton Station Homeowners' Association, and from the Reston Homeowners' Association, which meet the DEQ definition cited above, shall be accepted at the landfill at no cost. Dredge soils may be accepted after the cessation of landfill disposal activities and during the post-closure period in connection with landscaping improvements and installation of the final cap.\*
22. The control of decomposition gases from the landfill shall be monitored through the implementation of a Gas Management Plan in accordance with Virginia's Solid Waste Management Regulations. A coarse aggregate gas collection layer with collection pipe and gas vents above breathing zones shall be installed as part of the cap in areas that are proposed for Phase 5 and Phase 6 recreational uses on top of the landfill, including parking areas, as reviewed and approved by

- DPWES. All proposed structures on top of the landfill shall be open air, self-venting construction in order to prevent the buildup of landfill gases. Any closed structures, such as the leachate pump houses, shall be locked to prohibit public access.\*
23. Recycling of construction and demolition debris (and related materials) shall continue to be carried out on the landfill as an accessory use. Recycling shall include the sorting, separation, storing, and processing (such as chipping, crushing, augmenting) of debris and recyclable materials (including, without limitation, the sorting of cardboard, metal, wood and inert material).
  24. A yearly contribution of \$60,000 shall be provided to the County for use by DPWES for public outreach and education associated with recycling activities applicable to construction and demolition debris. Contributions shall begin August 1, 2014, and shall continue annually up to and including August 1, 2018, but shall thereafter cease.
  25. An Emergency Contingency Plan shall be prepared and implemented in accordance with Virginia's Solid Waste Management Regulations. A list of the landfill's equipment operators and their telephone numbers shall be made available to the County's Emergency Operations Center and kept current by the landfill operator.\*
  26. Landfill materials may be accepted and clearing or grading of any kind may take place on the site only between the hours of 7:00 A.M. to 5:30 P.M. Monday through Friday and between 7:00 A.M. and 3:00 PM on Saturdays. The landfill gates shall be permitted to open to customers at 5:30 A.M. Monday through Friday and at 6 A.M. on Saturdays to allow customers to queue on-site while waiting for landfill activities to commence. However, in no case shall landfill operations begin until the commencement of the normal business hours listed above. With prior approval from the Director of DPWES, or his designated agent, the applicant may operate until 5:00 P.M. on Saturday on an emergency basis. This approval shall not be granted more than ten times per calendar year. In the event of a significant community emergency, as determined in writing by the County Executive, the landfill may temporarily operate outside of normal business hours.\*
  27. In an effort to solve mutual problems, the operator will work with, and will, as necessary, meet on a regular basis with the Mount Vernon Council and/or the South County Federation and/or any other groups (such as neighboring homeowner associations) as designated by the Mount Vernon District Supervisor. In addition, the operator shall designate an ombudsman/community liaison within 30 days after the Board's approval of the application, with contact information (for said liaison or his replacement) available to the Chairman of the Board of Supervisors and the Mount Vernon Supervisor's office to facilitate to prompt dialogue with the community or field questions or concerns about the operations at the landfill.

28. Per Sect. 9-205 of the Zoning Ordinance, the site shall be made available to the Director of DPWES or his representative in preparation of the annual report to the Board of Supervisors. As a result of the annual inspection, the Director of DPWES may recommend additional restrictions and limitations on the use to the Board.\*
29. The vegetated landfill berm located around the perimeter of the landfill, as shown on Sheets 6-13 and 15 of the SEA Plat, (i) shall not exceed a height of 25 feet; (ii) the average height shall be no more than 20 feet for the linear distance of approximately 4,000 feet along Furnace Road periphery of the landfill, with the lowest height in that area being no greater than 17 feet; (iii) and the overall average height of the berm shall be more than 22 feet.

Height shall be measured from the top of the outside face to the corresponding grade of the adjacent lower access road; the respective average height shall be determined by measuring at every 100 linear feet of the respective face and averaging the heights measured.

#### Buffering, Landscaping and Screening Conditions

30. Irrespective of the notation on the SEA Plat that says "approximate limits of clearing and grading," the limits of clearing and grading as depicted on the SEA Plat shall be strictly adhered to. No new waste (debris) placement activity shall take place within 75 feet of the greater of the RPA or the 100-year floodplain of Giles Run. There shall be no disturbance within the RPA except in those limited areas depicted on the SEA Plat and/or as permitted under the Chesapeake Bay Preservation Ordinance.\*
31. Notwithstanding the limitations of other development conditions, the applicant shall be permitted to encroach into the limits of clearing and grading and/or the RPA without an SEA in order to conduct environmental monitoring and/or remediation activities to ameliorate a potential environmental and/or public health hazard. Prior to the commencement of any such disturbance, the applicant shall obtain all necessary approvals from DPWES for the actions to be taken, and immediately following any such activities, shall restore the disturbed area to the extent required.\*
32. All permanent berms located within buffer areas shall be landscaped to the satisfaction of the Urban Forest Management Division (UFMD), DPWES. The materials used and their separation shall be in conformance with the landscaping standards of Article 13 of the Zoning Ordinance as may be applicable and as determined and approved by UFMD.\*
33. A 50-foot wide continuous transitional screening buffer of existing trees shall be maintained along the northern boundary of the site as depicted on Sheet 21 of the SEA Plat and subject to UFMD approval.\*

34. Along the southern property boundary, i.e., from the southernmost point of the property to a point approximately: (i) 600 feet along the southwestern boundary and (ii) 800 feet along the southeastern boundary, a landscaped buffer of at least 100 feet shall be maintained. In any area along this boundary where a minimum of 100 feet of natural vegetation does not exist, additional landscaping shall be planted. The landscaping shall be designed to the satisfaction of UFMD, DPWES. The materials used and their separation shall comply with the landscaping standards of Article 13 of the Zoning Ordinance, as determined by UFMD, DPWES.\*

#### Conditions for the Landscaping of the Property

35. A landscape plan for all phases shall be prepared and submitted for the review and approval by UFMD, DPWES as part of the Site Plan Revision Approval for the landfill use. The landscape plan shall provide for revegetation of the landfill as depicted on the SEA Plat and shall include suitable varieties of trees and shrubs to the satisfaction of and approval by UFMD, DPWES, consistent with that shown on the SEA Plat.

The applicant shall consult with a Certified Arborist, Registered Consulting Arborist, or Certified Horticulturalist to manage and oversee the implementation of the landscape plan. The landscape consultant shall perform the following monitoring duties:

The landscape consultant shall be present at the site to inspect the plant material for quality, establishment, and growth of the plants shown on the approved site plan on a monthly basis for each growing season during all five Phases of the Landscape Plan and provide an update report to UFMD for each month. The report shall assess the progress on the landscaping's establishment and growth and identify the presence of any invasive species. The growing season is defined as May 1-September 30 in a calendar year.

Prior to the initiation of the each Phase of the landscape planting a pre-construction meeting will be held with the applicant, landscape contractor(s), landscape consultant and UFMD to review the approved landscape plan.

36. Prior to Site Plan Revision Approval, an invasive species management plan shall be developed by the applicant's arborist for approval by UFMD in order to control non-native, invasive vegetation and promote the establishment of native species. This plan shall be reviewed and approved by UFMD, DPWES.\*
37. All landscaping installed by the applicant shall be maintained in good health by the applicant. Any such landscaping that should die within the initial three growing seasons shall be replaced by the operator/applicant within the first growing season after its death, or as determined appropriate by UFMD. Any dead plants or invasive species that are identified by the landscape consultant

during his or her site visits shall be removed. The applicant shall replace any dead plants shown on the approved site plan that should die within the initial three growing seasons. The applicant and/or the landscape consultant shall follow the recommendations of UFMD in accordance with the PFM for how and when the replacement plants shall be reestablished.

38. At the time of Site Plan Revision Approval, cash, bond, or a letter of credit and payable to the County of Fairfax, in an amount determined by UFMD, DPWES, shall be posted to ensure that the approved landscaping and revegetation plans are completed.\*
39. Landscape planting shall be installed according to the landscape plan for each phase as generally depicted on the SEA Plat. Landscaping in one phase may begin before the completion of any prior phase to facilitate ongoing landfill operations. An interim vegetative cover shall be provided in disturbed areas where active landfill operations are complete and an interim landfill cap has been installed for any given area regardless of phase. Final landscaping, according to the approved landscape plan, shall be provided at the beginning of the first full planting season following the installation of the final landfill cap, subject to review and approval by UFMD. Final cover material shall be provided in accordance with DEQ design requirements, as approved in the Major Permit Amendment. Additional soil shall be placed on top of the final cover in those locations where the planting of trees is to occur, subject to the review and approval by UFMD and DEQ.
40. Final landscaping of the landfill shall be completed within one year after the termination of landfilling operations on the property and completion of the full landfill cap.\*

#### Transportation Conditions

41. Commercial truck traffic to and from the site shall enter the site only from the south. Commercial truck traffic shall be prohibited from making left turns into and right turns out of the landfill. The applicant shall retain its existing approved design at its main entrance and shall provide a similar restrictive design (as approved by the Virginia Department of Transportation) at its new southern entrance to accomplish this restriction. Signage shall be posted indicating the traffic restrictions at each of the site's entrances/exits. The operator shall inform all regular customers of these restrictions in writing at least twice a year.\*
42. Beginning with the construction and operation of its building thereon, the Applicant shall also enforce, on its Mixed Waste Reclamation Facility across Furnace Road on Tax Map Parcels 113-1-((1))-12, -13, the above same prohibition against commercial truck traffic accessing that Mixed Waste Reclamation Facility from and to the north on Furnace Road. Commercial truck traffic shall be prohibited from making right turns into and left turns out of the Mixed Waste Reclamation Facility, except to the extent commercial trucks may

travel between the landfill and the Mixed Waste Reclamation Facility. Signage shall be posted indicating the traffic restrictions at the site's entrance/exit. The operator shall inform all regular customers of these restrictions in writing at least twice per year, shall impose and enforce a rule that repeat offenders will be barred from use of the facility, and will install a video system to record commercial trucks entering and exiting which will be routinely monitored by staff who will enforce this access restriction.

43. Right-of-way to 44 feet from the existing centerline along the site's Furnace Road frontage and any ancillary easements shall be reserved for dedication to the Board of Supervisors in fee simple without encumbrances at no cost as shown on the SEA Plat. This right-of-way shall be dedicated upon demand by Fairfax County and/or the Virginia Department of Transportation (VDOT). Should this right-of-way dedication be required prior to completion of landfill activities, the raised concrete island at the main entrance to the landfill shall be permitted to remain, subject to VDOT approval.
44. There shall be no access to the property for any landfilling purpose through the adjoining properties to the north. Pedestrian access shall not be permitted, except a trail connection to Lorton Valley may be provided in Phase 1 solely at the option of the Lorton Valley Homeowners Association, as depicted on the SEA Plat.
45. Effective dust and gravel control measures shall be installed and maintained by the operator of the landfill. At a minimum, these measures shall include the full-time availability of a water tank truck and sweeper vehicle on-site. During construction of the vegetated earthen berm, a second water tank truck shall operate primarily in the area of berm construction.\*
46. As depicted on the SEA Plat, a second right turn in-only lane shall be constructed by the applicant, as approved by VDOT, as a new southern entrance-only for truck traffic travelling north on Furnace Road. No left turn into nor exits from the landfill shall be permitted at this second/southern entrance.

#### Renewable Energy Program

47. The applicant shall establish a Green Energy Park (GEP) on portions of the landfill as generally shown on the SEA Plat. Said GEP shall consist of renewable energy generation facilities including geothermal infrastructure and methane gas collection systems and solar panels, as interim uses during both the landfill operations and post-closure periods, as described below:
  - A. After having received all necessary Federal, Virginia, and Fairfax County approvals, to include, but not limited to: (i) Federal and State approvals; (ii) all requisite DEQ approvals, including the Major Permit Amendment; and (iii) all requisite County approvals such as GRB, site plan, land development and structure permits, non-DEQ bonding, and Non-RUP,

(the above referenced approvals all collectively referred to as "Necessary Approvals," which shall diligently be pursued by the applicant), the applicant shall prepare, by the end of Phase 5, an area that can accommodate solar panels (or solar conversion infrastructure) on top of and/or on the southern slope of the landfill and provide solar panels (or solar conversion infrastructure) sufficient to produce 1.0 megawatt peak ("MWpk") electric power capacity. The applicant shall retain and maintain said solar panels until the manufacturer's stated useful life of this infrastructure ends, which may extend beyond the DEQ post-closure period.

Fifty percent of any revenue, in excess of 2.5 cents per kilowatt hour, the applicant receives from the sale of the electricity produced by these solar facilities shall be contributed to the County of Fairfax within 30 days after receipt of such revenue. The applicant shall submit a quarterly report to DPWES documenting the electricity produced.

- B. The applicant also shall install a methane gas recovery system within the landfill and shall deliver to the County, at a mutually agreed upon nearby location (such as Landfill Energy Systems, Inc.), methane gas sufficient to generate the equivalent of an average of one million kilowatt hours annually of electricity (50 standard cubic feet per minute [SCFM] of landfill gas) with the intent that it will be used by the County to generate electricity sufficient for the normal operating needs of County-owned facility(ies) and/or for use by County-owned facilities as a fuel for operations, such as the Noman Cole Water Pollution Control Plant. The applicant shall pay the incremental cost, if any, of processing the methane gas so that it is suitable for combustion by industry-standard co-generation infrastructure. Delivery of the methane gas shall begin within 24 months after Site Plan Revision Approval, Non-RUP, and DEQ approvals for the SEA landfill expansion and continue until the cessation of landfill activities or until December 31, 2025 or until the landfill generates less than 50 SCFM of gas, whichever occurs first after which point the applicant will no longer be required to provide the methane gas to the County.
- C. Within 24 months after having received all Necessary Approvals for implementation of the SEA landfill expansion the applicant shall install a geothermal recovery infrastructure at the landfill with capacity to support the mixed waste reclamation facility building on Tax Map 113-1 ((1)) 12 and 13 and other structures the applicant or others may construct on nearby land . The Applicant shall maintain the geothermal recovery infrastructure and related access point until DEQ post-closure period ends.
48. When requested by the County, the applicant shall provide to the County operational data (operating cost, productivity and revenue information) equipment specifications, and maintenance data related to its renewable energy

park on an annual basis over the GEP's operating life. Said data shall be available electronically for access and use by the general public and academic bodies, and for research

49. The following shall be paid by the applicant to the Fairfax County Board of Supervisors for the respective renewable energy generating facility not provided within the timeframe specified, in the following amounts in lieu of said facility: (i) \$3,000,000 should the methane recovery system not be established sufficient to deliver the commitment in 47.B. within 24 months after having received all Necessary Approvals for the landfill expansion; and (ii) \$1,000,000 should the geothermal not be installed as approved by DEQ within 4 years of after having received all Necessary Approvals for the landfill expansion; and (iii) 2.25 million dollars should the solar infrastructure not be installed as proposed in condition 47 for Phase 5. In lieu of said payment penalty, the applicant may expend one or more of the penalty amounts on installation on-site of renewable energy technology other than that technology not timely provided, subject to a Board motion authorizing such expenditure and installation. Said funds shall be payable to Fairfax County with consideration toward local community needs in the Lorton/South County area and/or renewable energy infrastructure at County-owned property, as determined by the Board. The Zoning Administrator may grant extensions to the above penalty payment periods if it is determined that the applicant diligently has pursued said Necessary Approvals.

#### Recreational Uses

50. As generally depicted on Sheet 21 of the SEA Plat, in Phase 1 an approximately 5.2 acre private recreation area shall be provided by the applicant at the sole option of the Lorton Valley Homeowners' Association (LVHOA) and made available for use solely by LVHOA residents and their guests; if provided, said private recreation area and improvements described below shall be conveyed in fee simple to LVHOA. In lieu of the private recreation improvements, the LVHOA, at its sole option, may request that the applicant convey the approximate 5.2 acres designated for the recreation area but without any improvements. No later than one year after Site Plan Revision Approval, the applicant shall provide in writing to the LVHOA its proposal to convey the 5.2 acre private recreation area and amenities or the option to convey only the 5.2 acre land area without improvements. The LVHOA shall have six months upon receipt of the applicant's letter to respond in writing to the applicant's proposed conveyance. If the LVHOA requires additional time, such additional time shall be mutually agreed upon by the applicant and LVHOA. In the event LVHOA chooses not to accept said private recreation area, then the recreation area shall not be constructed and this land shall not be conveyed and shall remain in undisturbed open space. Regardless of conveyance, a 50-foot wide treed buffer shall be provided along the entire northern property boundary and consist of a combination of existing, mature trees and supplemental plantings shall be installed by the applicant and shall be subjected to a conservation easement prior to conveyance of the recreation area to LVHOA. Grading shall be

permitted within this buffer area, as determined by UFMD, as necessary for installation of the adjacent natural surface trail and/or other improvements identified immediately below. Removal of vegetation to install improvements within the 5.2 acre private recreation area shall be in coordination with the LVHOA and subject to the approval of UFMD. Adjacent to the 50-foot wide treed buffer area, a natural trail and any off-site trail connection, exercise stations along the trail, a multi-purpose open space area, a dog park, and/or picnic tables and 5.2 acres of private recreation area shall be provided by the applicant, at the sole option of and if agreed to by the LVHOA at any time prior to beginning of construction of the Phase 2 berm..

51. As generally depicted on Sheets 10 and 14 of the SEA Plat, an outdoor baseball hitting range/cages may be provided during the Phase 5 DEQ post-closure period, if permitted by DEQ, or after the DEQ post-closure period ends. No outdoor lighting shall be permitted.
52. As generally depicted on Sheet 47 of the SEA Plat, and as approved by DPWES on separate site plan revision submission(s), active recreation uses consisting of baseball hitting range(s), a golf driving range and/or a radio controlled aircraft field may be provided by the applicant or lessee during Phase 6 of development either: (a) subsequent to cessation of the Green Energy Park, or (b) upon the end of DEQ post-closure period. There shall be no outdoor lighting permitted for these uses.
53. The applicant shall provide ongoing monitoring and maintenance of the berm on the application property, as shown on Sheets 6-13 and 15 of the SEA Plat (hereinafter, "berm") and shall fully and promptly remedy and/or repair any and all conditions that impair or affect the berms structural stability. In addition, commencing immediately after DEQ has ceased its formal oversight of the post-closure landfill activities and has released the applicant from its DEQ Financial Assurance, the following conditions shall apply:
  - A. On an annual basis or such less frequent time period as may reasonably be agreed to by DPWES in writing, or at the reasonable request of DPWES due to urgent concerns about the stability of the berm, the applicant shall retain a qualified licensed professional engineer ("Applicant's Engineer") to conduct an inspection of the structural stability of the berms, and provide a report to the Director of DPWES on or before July 15th of each calendar year for annual or such less frequent inspections, and within a reasonable time after an urgent request is made by DPWES for an immediate inspection of the berm based on concerns relating to their structural stability. Such inspection report shall fully detail the results of the inspection, identify and fully describe all structural deficiencies of the berm and any concern relating thereto, and shall provide a detailed and specific corrective action plan for remedying all such deficiencies and concerns. The applicant shall immediately implement all urgent and/or immediate actions called for by the corrective action plan and shall fully and timely implement all other items in the corrective action

- plan on a reasonable schedule established by DPWES in writing after consultation with the Applicant's Engineer. In addition, the applicant shall implement such additional measures that are reasonably required in writing by DPWES to ensure, restore, or maintain the structural stability of the berm pursuant to a reasonable schedule established by DPWES in writing after consultation with the Applicant's Engineer.
- B. Immediately upon the release of the DEQ Financial Assurance for the closure and post-closure activities relating to the landfill, the Applicant shall post with the County a performance bond, letter of credit, cash, or other form of financial security approved in writing by the Director of DPWES in an amount equal to the portion of the DEQ Financial Assurance that was allocated to the inspection and maintenance of the berm or in a reasonable amount determined by DPWES based on factors relating to the structural stability of the berm. In addition, at that time the applicant also shall take all actions that are necessary to ensure the continuation of an environmental liability insurance policy as had been required by DEQ which provides insurance coverage in an amount equal to the amount that DEQ required for the berm prior to the cessation of DEQ's formal oversight of the landfill or in a reasonable amount determined by DPWES based on factors relating to the structural stability of the berm. Such environmental insurance policy shall name the County as an additional insured and shall be issued by an insurance company with a rating equivalent to that required by DEQ. Certificates of insurance evidencing the continuation of such coverage, and the naming of the County as an additional insured, shall be provided to the County within 14 days of a request for such verification. (Hereinafter, the financial security and the insurance coverage are collectively referred to as "County Security"). The County Security shall remain in effect for an initial period of ten (10) years. Thereafter, the County Security may be extended for successive additional five (5) year periods in the event that DPWES, in its sole discretion, identifies ongoing structural deficiencies or structural concerns with the berm. At such time as the County Security is no longer necessary, in the sole discretion of DPWES based upon one or more clean annual reports, the County Security may be released; provided, however, that the remaining obligations of this condition shall continue in full force and effect throughout the life of the berm.
- C. Should the County determine at the time of Site Plan Revision Approval that it prefers the establishment of an "escrow" or "trust fund" by the applicant in lieu of the financial security referenced in paragraph 53.B. above, in such event the applicant shall establish such a fund to be held by and for the benefit of Fairfax County strictly for payment of repair costs for the berm. The applicant shall contribute \$75,000 per year to the fund beginning on December 31, 2019 and with the final payment ending on December 31, 2025, for a total contribution of \$525,000. Should this fund not have grown to at least \$1 million by the time applicant is released by DEQ from its post-closure bond

with DEQ, applicant shall make a one-time payment to bring the fund amount to \$1 million as a condition of its release by DEQ.

- D. The applicant agrees to and shall record among the land records of Fairfax County a covenant running with the land that expresses the ongoing responsibilities set forth in this condition to give notice to prospective purchasers. The covenant shall be drafted in a form that is acceptable to the applicant and the County Attorney's Office and shall ensure that all of the foregoing provisions of this condition are made to run with the land and are binding on the applicant, its parent company, its assigns, and all of its successors-in-title. The covenant required by this condition shall be recorded among the land records of Fairfax County prior to Site Plan Revision Approval for the application property in accordance with this SEA.

The above proposed conditions are staff recommendations and do not reflect the position of the Board of Supervisors unless and until adopted by the Board.

This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be responsible for obtaining the required Non-Residential Use Permit through established procedures, and this Special Exception Amendment shall not be valid until this has been accomplished.

Pursuant to Section 9-015 of the Zoning Ordinance, this Special Exception Amendment shall automatically expire, without notice, 48 months after the date of approval unless the landfill use has been established or construction has commenced and been diligently prosecuted. Establishment of this SEA landfill use shall confirm applicant's (and successors) right to construct and/or establish the electrical-generating and active recreation facilities and uses. The Board of Supervisors may grant additional time to establish the use or to commence construction if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the Special Exception Amendment. The request must specify the amount of additional time requested, the basis for the amount of time requested and an explanation of why additional time is required.

**FURNACE ASSOCIATES, INC.**  
**APPLICANT'S STATEMENT**  
**SPECIAL EXCEPTION AMENDMENT SEA 80-L/V-061-2**  
**Revised July 18, 2014**

Pursuant to Sections 3-104, 9-201, 9-301 and 9-501 of the Zoning Ordinance, Furnace Associates, Inc. (alternatively, "**Furnace**" or the "**Applicant**") requests Fairfax County Board of Supervisors' (the "**Board**") approval to amend Special Exception Amendment SEA 80-L/V-061 ("**SEA-1**") on Fairfax County Tax Map Parcels 113-1-((1))-5(pt.), -7 and -8, and 113-3-((1))-1, -2 and -4 (the "**Property**" or "**Application Property**") to (i) establish renewable energy electric generation facilities including solar, geothermal infrastructure and methane gas collection systems as "interim uses" to further the County's "Green Energy Triangle" initiative; (ii) extend the useful life of the existing construction debris landfill to continue land filling activities until December 31, 2025; (iii) remove the previously-approved public park uses and facilities and the dedication requirement rescinded by the Fairfax County Park Authority Board (Park Authority Board and Staff collectively "**FCPA**") in March 2009; and (iv) entitle three alternative private, limited-access active recreation "end uses." The Applicant has submitted proposed development conditions dated July 14, 2014 ("**Development Conditions**").

The approximately 250-acre Property, zoned R-1, is occupied by a Construction Demolition Debris ("**CDD**") landfill which is classified as a "Category 2" Special Exception ("**SE**") use. A CDD landfill has been operated on the property since at least the 1970s, and ultimately in accordance with SE 80-L/V-061, approved on November 16, 1981 and amended by the Board in SEA-1 on January 8, 2007, subject to 56 development conditions. The landfill is inspected at least quarterly by the Virginia Department of Environmental Quality ("**DEQ**"). CDD landfills accept inert materials, such as concrete, rock, asphalt and glass, as well as scrap lumber, drywall, trees, brush, and other debris from construction sites and land clearing activities, as approved in the Property's DEQ waste permit. While no landfill may be permitted by DEQ without local government land use approval, no landfill use may be established without DEQ engineering review, approval, bonding requirements, operational limitations, environmental, monetary and reporting requirements, inspections and enforcement. No owner/operator of a DEQ permitted landfill can be released from its operational, maintenance, and monetary obligations until DEQ is satisfied, after typically ten (10) years of post-closure monitoring and inspections, that the landfill has completed settlement satisfactorily, the landfill cap is intact, and there is no existent environmental degradation or any indication thereof.

The Application Property generally is located between Interstate 95 and Furnace Road, south of Lorton Road and east of the County landfill, incinerator, and the Landfill Energy Systems ("**LES**") facility (formerly known as Michigan Co-Generation Systems, Inc.). In conjunction with this amendment application SEA 80-L/V-061-2 ("**SEA-2**"), Furnace has submitted a proposed, revised Plat dated March 22, 2013, as revised through July 18, 2014, consisting of 47 sheets and prepared by BC Consultants ("**SEA-2 Plat**").

Each submission of SEA-2 has reflected substantial revisions in response to Board, Staff and community input. The July 18, 2014 SEA-2 Plat and revised Development Conditions reflect (i) a closure date of December 31, 2025; (ii) deletion of all wind turbines; (iii) continued provision of three of the four renewable energy features; (iv) sharing of these energies or

revenues therefrom with the County; (v) expanded commitment to CDD recycling through withdrawal of PCA 2000-MV-034, retention of the Mixed Waste Reclamation Facility ("**MWRF**") and restriction of truck access to it; and (vi) reduction of the proposed berm to an overall average height of 22 feet, ranging from a high of 25 feet to a low no greater than 17 feet, and to an average height no greater than 20 feet along Furnace Road. This revised SEA-2 is consistent with the spirit, intent and specifics of the Board's June 17, 2014 "Potential Framework."

The Applicant also owns two tracts adjacent to the Property which never have been used for landfilling, approximately 9 acres and 17 acres in size, respectively, and located on the west side of Furnace Road outside the boundaries of the Application Property. Furnace had proposed to construct and dedicate passive public recreation uses on the 17-acre, R-1 zoned tract (Tax Map Parcel 113-1-((1))-5(pt.)) which is part of the landfill Tax Map Parcel but the Fairfax County Park Authority (FCPA) was not interested. Furnace is now proposing to continue its already-entitled mixed waste reclamation use on Furnace's adjacent I-6 zoned tract (Tax Map Parcels 113-1-((1))-12, -13) (the "**PCA Property**") and to withdraw the pending Proffered Condition Amendment ("PCA") Application.

Two 2232 Applications also were filed with the Department of Planning Zoning for the wind turbine and solar panel electric generating facilities on the SEA-2 Property and the solar panels on the PCA Property. On April 3, 2014, the Planning Commission determined that the proposed solar and wind electrical generating facilities satisfy the location, character and extent criteria in Section 15.2-2232 of the Code of Virginia, as amended. The proposed wind turbines subsequently were eliminated from the SEA-2 Application. The solar panels are now being eliminated from the PCA Property.

SEA-1 permits excavation, grading and filling associated with a CDD landfill, subject to 56 Development Conditions. SEA-1 Condition #12 limits the height of the landfill, prior to the installation of final cover, vegetation and structures, to a final waste fill elevation of 412 feet above sea level, and requires cessation of landfill operations on or before January 1, 2019 or upon reaching maximum height of fill, whichever occurs first. SEA-1 allowed quasi-public park uses on the Property and required its dedication to the FCPA after completion of post-closure monitoring by DEQ. Subsequent to imposition of these conditions by both the FCPA and the Board, in March 2009, the FCPA determined that it would not accept the future dedication of "Overlook Ridge." FCPA's reversal negated the underlying understanding of all three parties that the public park use would be owned and operated by the FCPA and that the liability associated with public access for recreational purposes would be the FCPA's.

In SEA-2, the Applicant seeks approval to add a vegetated berm that will have a varying height based on varying topography, with a low no greater than 17 feet and a maximum of 25 feet, and an overall average height of 22 feet, in order to develop a near-level approximately 20-acre top elevation area by filling between the existing slope and that berm, and to extend the landfill's useful life to December 31, 2025. The Applicant also is requesting approval of and committing to create renewable energy through solar and methane recovery infrastructure and equipment (plus heat and cooling capability through geothermal facilities), and to establish 1.0 MWpk of solar energy in Phase 5, post-closure.

In addition, after significant outreach with representatives of the Lorton Valley Homeowners Association located adjacent on the north to the Application Property, Furnace has committed to provide a recreation facility for use solely by Lorton Valley residents, to be conveyed to their HOA. This approximately 5.2-acre park and facilities would be provided as determined solely by the Lorton Valley HOA. Given the limited open space available within Lorton Valley, this park would provide a desirable, permanent amenity to Association residents within walking distance of their homes. As an option, the HOA may choose to accept the five-acre land area only, without any improvements. In either event this 5.2-acre area would be subject to a restriction in the form of a "conservation easement" stating that no trees could be removed, except dead or dying trees, as determined by the Urban Forestry Management Division ("UFMD"). Should Lorton Valley elect to decline these facilities or conveyance of the land, the approximately 5.2-acre area shall remain in undisturbed open space.

SEA-2 complies with the "General Standards" for all SE uses and with the "Additional Standards for the Category 2, 3 and 5 Uses" being requested.

**A. Type of Operation.**

The Applicant proposes continuation of the existing CDD landfill activities over a phased plan of development that includes an extensive landscape planting program, as proposed on SEA-2 Plat Sheets 16 through 25, to be implemented both during Phases and after cessation of landfill operations. The new, proposed interim and ultimate landscape planting designs will establish an attractive buffer with a forested appearance. The extensive amount of landscape plantings currently provided on the slopes of the landfill, as well as the additional landscaping proposed over five phases in SEA-2, has presented a unique challenge to establish and maintain. UFMD has been working closely with the Applicant's Arborist regarding adjustments to planting types and design as reflected in this SEA-2 Application, incorporating lessons learned over the past several years to determine which trees and shrubs have the highest survivability rate. These principles are being used to maximize the creation of tree canopy and greening of the landfill. Maintaining the health and survivability of the extensive amount of vegetation is in the best interest of all parties. The amount of planting proposed is unprecedented for a landfill, which is not conducive for landscaping due its size, steep slopes, wind impacts and deer.

This proposed extension of the only CDD landfill in the region with a significant remaining useful life, to a closure date of December 31, 2025, is consistent with and fulfills the goals set forth in the Fairfax County Solid Waste Management Plan ("SWMP"). The SWMP identifies a significant shortfall in landfill capacity for CDD generated in the County; specifically, the SWMP cites a need for 18 to 21 million tons of disposal capacity through 2024 (the end of its study period). The SWMP recommends the projected shortfall be addressed through continued use/expansion of local landfills and/or encouraging a regional approach to CDD disposal. The Applicant's projection is confirmed by Joyce Doughty, Assistant Director of the SWMP, who in her memorandum to ZED Staff dated November 6, 2013, states that, "In general terms, the benefit of continued operation of the Lorton Landfill would be assured CDD disposal capacity . . . , offsetting the need for longer transport of up to 400,000 tons per year of material." A corrected June 2014 DPWES assessment projects an approximately 600,000 tons per year County capacity demand based upon ESI's 2013 tonnage, and the SWMP Table 7-5 at page 7-6 projects in excess of 900,000 tons per year County capacity demand by 2018. There

were two other CDD landfills in the County. One of these has closed since filing of this SEA-2. The other site's capacity is practically exhausted. Standing alone, it could handle the CDD demand from the County for less than one year. Long-term CDD disposal capacity is critical to the economic vitality, economic development, and revitalization goals of the County. The continued availability of Applicant's landfill is crucial to solving the County's anticipated near-term exhaustion of CDD capacity. In addition, Furnace Associates will withdraw its pending PCA Application and expand CDD recycling operations at the mixed waste reclamation facility ("MWRFF") on the I-6 zoned land across the street. Right- and left-turn lanes currently exist on Furnace Road at the entrance to the MWRFF. The applicant's engineering consultants do not expect VDOT will allow any entrance modifications which physically restrict access in and out of the MWRFF, such as concrete islands, gates, etc. If VDOT were to approve physical access modifications, the applicant will implement them. The applicant will implement a written policy with all commercial customers accessing this facility in which they acknowledge and agree not to enter or exit the facility from and to the north. Said agreement will state that repeat offenses will result in banishment from use of the facility. Signs will be posted that prohibit left-hand turns out and right-hand turns into the facility for all commercial truck traffic. Further, the applicant will install a video monitoring system which will record commercial vehicles accessing the facility (both entering and exiting) and which will be routinely monitored by staff who will enforce the truck access restriction during operating hours. The only exception to the prohibition on commercial truck left-hand turns out and right-hand turns in will be solely for the applicant's trucks traveling between the MWRFF and the landfill entrances.

The Applicant proposes to create a vegetated berm around the perimeter of the landfill and to fill the space between this berm and the existing side slope to develop the landfill's capacity over five, overlapping phases of operation. The berm is proposed for an overall average height of 22 feet with the lowest height along the western (Furnace Road) side being no greater than 17 feet; it would not be visible to any residential units or streets, and it necessarily would be uneven due to uneven topography and a drop of 80 feet from Furnace Road to the I-95 east side.. Reinforcement material, consisting of a geo-synthetic such as a "geo-grid" (commonly high density polyethylene which is the same material used in landfill liners), would be laid horizontally, adding strength and stability to the berm and requiring less earth material within a smaller footprint than a comparable earth-only berm. Facing materials also would include a geo-synthetic and be designed to promote vegetative growth. The vegetated berm and ground-level and upper-level access roads would be completed over five phases as depicted on SEA-2 Plat Sheets 6 through 13. The Applicant also requests approval to add a southern "Right-In Only" access point, which would improve on-site queuing, filling and circulation patterns. As depicted on the Landscape Plans (SEA-2 Plat Sheets 16 through 23), nearly 8,787 trees would be planted on primary and intermediate benches, mostly on the northern and eastern slopes of the landfill, with some on the western slope, by the completion of Phase 5. This would result in 4,276 more trees being planted on the landfill in SEA-2 than approved in SEA-1.

Instead of becoming merely a "closed landfill," this proposal creates a unique opportunity for renewable, green energy-producing facilities that functionally relate to the surrounding County infrastructure and provide environmental sustainability and economic benefits to the County. The Applicant proposes to locate a renewable or "Green Energy Park" on the landfill in accordance with the recommendations of the County's Energy Task Force (renamed the "Energy Alliance Task Force") and the broader, long-term sustainable energy goals established by the

Board. One recommended goal of the Task Force was to establish a "Green Energy Triangle" as a transformational energy project in Lorton. In addition to installing and operating geothermal and methane recovery facilities, the SEA-2 Plat provides in Phase 5 a near-level top (enabled by the vegetated berm) of approximately 20 acres for a 1.0 MWpk solar farm ("**Full GEP**"), which shall be provided by the Applicant/Owner after landfill closure. The Applicant shall share 50% of any revenues in excess of 2.5 cents per kilowatt hour received from the sale of electricity produced by these solar facilities.

The Applicant also will install a methane gas recovery system within the landfill and will deliver to the County methane sufficient to generate the equivalent of one million kilowatt hours annually of electricity (until the earliest of cessation of landfilling activities, or December 31, 2025, or until this landfill generates less than 100 Standard Cubic Feet per Minute [SCFM] of methane gas), with the intent that it will be used by the County to generate electricity sufficient (i) for the normal operating needs of County-owned facilities such as the former Lorton Workhouse site ("**Workhouse Arts Center**"), thereby reducing the financial burdens for that facility, or (ii) for use at some other County facility. Applicant will pay the cost of processing the methane gas so that it is suitable for combustion by industry standard co-generation infrastructure.

"Overlook Ridge," which was requested by the Applicant and the FCPA, and approved by the Board in January 2007, is proposed to be eliminated in this SEA-2 Application to reflect the FCPA's decision in March 2009 to reject dedication of the landfill site by ESI to the FCPA. SEA-2 continues to provide for open space and recreation facilities, but to be constructed in the north side buffer zone (which would be accessed from a trail connection to Lorton Valley) if requested by the Lorton Valley HOA.

A dustless surface waiver has been requested to provide access to this use, both for the initial gravel access road during Phases 1 through 4 and the subsequent gravel access proposed to be provided in Phase 5 through the post-closure period.

This CDD landfill currently accepts select volumes of dredged soils from lakes, ponds, and storm water management facilities in the County that are either publicly or privately maintained. (Certain of these dredged soils are accepted by the landfill for free, which saves the County significant costs.) Over time, such facilities accumulate sediment which, if not removed, will severely reduce their ability to function effectively, resulting in a serious threat to County and regional water quality and storm water capacity. Extending the closure date to 2025 will provide a long-term outlet for dredged soils produced in the County, a critical environmental need since there are no dredged soil treatment facilities in the County or the region.

This SEA-2 has evolved over the course of 24 months of extensive discussion and negotiation with the South County Federation Land Use Committee ("**LUC**") pursuing an alternative to the pre-empted Overlook Ridge, and simultaneous outreach with other community and countywide stakeholders. The Applicant committed to development of a Green Energy Park ("**GEP**") with four robust re-usable energy components – wind, solar, methane, and geo-thermal – plus certain additional revenue-generated contribution commitments. The LUC discussions came to a halt in late May 2012 despite leadership representations of support up to that time. At the Countywide level, a recommendation by the County Energy Task Force resulted in Board

adoption of a Green Energy Triangle concept<sup>1</sup> for the immediate landfill area and commitments to establishment of a national model for the location of substantial green energy infrastructure components on public and private land in that area.

Applicant's commitment to the LUC had been to the provision of the GEP infrastructure and other proposed amenities, some of it up front and the remainder through 2040, the proposed operational life of its landfill needed to support such an enormous expenditure. In late November 2012, the LUC requested that Applicant instead fund a Recreation Center at a cost, according to FCPA, of \$50M (including debt service through 2040). The Applicant responded with a proposal to provide a significant but revised GEP infrastructure "up front," and payment of an additional \$15M over time towards a specified community need.

The SEA-2 Application proposes to implement a key component of the February 5, 2013 County Staff Report to the Board Environmental Committee recommending development of the Green Energy Triangle in Lorton. A key objective in this County staff recommendation, as noted in the Task Force report, is to rebrand the Lorton area. The Applicant's proposal further manifests the County Executive's FY 2014 report to the Board, which specifically cites the Green Energy Triangle as "leading to a re-branding of the Lorton area, changing its identity from being a site of the County's waste and debris disposal facilities to becoming a tangible expression of the County's renewable commitment". The Applicant's renewable energy program is a direct result of the work of the Task Force, the Board's Environmental Committee, and other Board policies.

The approval of SEA-2 would (i) avoid the increased truck traffic caused by the closure of the landfill that results from the need to transport all CDD out of the County to remote landfills; (ii) avoid the impact of unrecovered methane gas generated by both the Applicant's landfill and by the additional waste that will be transported to other CDD landfills in Virginia (which are not required to capture methane gas); and (iii) produce offsets to energy produced by fossil fuels due to the impact of energy produced by the solar facilities. The combined benefit of the Application to the environment is a significant avoidance of greenhouse gases which directly addresses the objectives called for in the County's adoption of the "Cool Counties" initiative.

In its "2013 Annual Report on the Environment" dated November 2013, the County's Environmental Quality Council ("**EQAC**") identifies key ways to reduce greenhouse gas emissions, including landfill gas to energy systems (pages 11-17)). In praising the work on a "Lorton Green Energy Triangle," the 2013 EQAC report states, "These cooperative planning efforts to make more efficient use of existing energy sources and to create renewable energy within the county is commendable" (page 31-32). EQAC commends the County for recognizing the importance of reducing greenhouse gas emissions and promoting education and outreach programs (page 34). EQAC states on page 35 that it "strongly supports the continuation of work

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<sup>1</sup> In a Motion on October 16, 2012, the Board enthusiastically and unanimously endorsed the Chairman's "Private Sector Green Energy Task Force" recommendations, stating a purpose of "*stimulating a transformational energy project*" and creating "*with the private sector, pilot projects to demonstrate the use of local alternative energy sources for small and large scale development. These projects should: a) Not require legislative changes, nor changes to county policy; b) Be revenue neutral for the county of have the potential for revenue generation and c) Could be initiated within 24 months. The Lorton Green Energy Triangle is a potential example.*"

started by the Chair's Energy Task Force be continued through the Energy Alliance." This SEA-2 Application fulfills all of those goals.

As committed in the Applicant's Proposed Development Conditions, the Applicant will construct, beginning in Phase I, methane and geothermal infrastructure on the landfill; provide methane gas to the County for County-owned facilities (such as the Workhouse Arts Center and/or the Norman Cole Water Pollution Control Plant), over the operational life of the landfill, enabling the County to reduce its energy costs; and donate to the County 50% of the revenue, in excess of 2.5 cents per Kilowatt-hour, resulting from sale of electricity generated by the proposed solar infrastructures. In addition to the revenue opportunity for the County from the sale of renewable energy, another long-term benefit is that the Applicant's green energy park will serve as a cornerstone in the rebranding of the of the Lorton area as one of the most progressive communities in the region, if not in the nation.

As requested by the Planning Staff, Phase 5 of the SEA-2 (SEA-2 Plat Sheets 10 through 14) were revised to add the potential for a Category 5 "outdoor baseball hitting range" use after landfill operations have ceased, beginning after DEQ Release. This active recreation use during the end of Phase 5 could be established before or coterminous with the solar panels in Phase 5 and be operated by a lessee who would assume liability for private use on the landfill.

Phase 6 (SEA-2 Plat Sheet 47) seeks approval of alternative private active recreation uses which will consist of either a Category 5 outdoor baseball hitting range and/or private golf driving range and/or a Category 3 model aircraft field, or similar private club or benefit association uses. One, two or three of these uses would operate either: (a) subsequent to cessation of the "interim" Green Energy Program, or (b) upon release of the Applicant by DEQ from post-closure monitoring and maintenance of the landfill. The lessees would assume liability for private use on and access to the closed landfill property.

**B. Hours of Operation.**

Landfill Operations (Phases 1 – 5):

Monday through Friday 7:00 a.m. to 5:30 p.m. and Saturday 7:00 a.m. to 3:00 p.m., with continuation of certain limited exceptions as currently permitted under the SEA-1 Development Condition #27.

Outdoor Baseball Hitting Range (Phases 5/6):

April 1 to October 31: 4:00 PM – 10:00 PM Monday – Friday  
10:00 AM – 10:00 PM Saturday & Sunday

Golf Driving Range (Phase 6):

All year round: 10:00 AM – 10:00 PM Sunday – Saturday

Model Airplane Flying Field - Private Club or Benefit Association (Phase 6):

April 1 to October 31: 9:00 AM – 8:00 PM Monday – Sunday  
November 1 to March 31: 9:00 AM – 5:00 PM Monday – Sunday

**C. Estimated Number of Patrons.**

Landfill (Phases 1 – 5):

No change from current and prior experience. The number of patrons varies with weather conditions, time of year and the prevailing economy, which directly impact regional development activity and the amount of construction debris to be disposed.

Outdoor Baseball Hitting Range (Phase 5 end and possibly continuing and expanding in Phase 6): 125 patrons.

Golf Driving Range (Phase 6): 170 patrons.

Private Club or Benefit Association (Phase 6): 21 patrons.

There is little expectation all three recreational uses will exist simultaneously.

**D. Proposed Number of Employees.**

Landfill (Phases 1 – 5):

It is anticipated that there will be approximately 17 full-time equivalent employees and 17 contract employees working at the landfill during the operations time period.

Outdoor Baseball Hitting Range (Phase 5 end and possibly continuing and expanding in Phase 6): Two full-time equivalent.

Golf Driving Range (Phase 6): Two full-time equivalent.

Private Club or Benefit Association (Phase 6): One full-time equivalent.

There is little expectation all three recreational uses will exist simultaneously.

**E. Estimate of Traffic Impact of the Proposed Use.**

No change to landfill operations is proposed, so there will be no change in related trip generation. As prepared by Wells + Associates, Inc., trip generation estimates associated with the proposed SEA-2 use are based on the 2011 load counts taken at the landfill truck scales and are as follows:

	Acres	Annual Loads	Average Daily Loads	Average Daily Trips
Existing Use	250	112,698	394	788
Proposed Use (estimated)	250	112,698	394	788
Net New Loads and Trips		0	0	0

FCDOT determined on July 31, 2012 that no Chapter 870 (formerly 527) study is required because no material increase in trip generation is projected.

Estimated traffic impact of the three alternative recreation uses would be relatively minimal, and would not occur until after landfilling activity has ceased. The following is based on ITE Trip Generation estimates:

Outdoor Baseball Hitting Range (Phase 5 end and possibly continuing and/or expanding in Phase 6): 220 Average Daily Trips.

Golf Driving Range (Phase 6): 341 Average Daily Trips.

Private Club or Benefit Association (Phase 6): 42 Average Daily Trips.

None of the three uses produces any material peak hour trips. There is little expectation all three will exist simultaneously.

**F. Vicinity or General Area to be Served.**

This is a regional CDD landfill which serves the entirety of Fairfax County.

**G. Description of Building Façade and Architecture.**

There are no architectural treatment considerations relevant to this Application. Minor "structures" consist of construction trailers, with all but one to be demolished or removed during the course of development. One permanent operations trailer with an associated parking lot will be located in the northwest corner of the property and remain subsequent to Phase 5 closure. Other facilities are solar panels, leachate pump houses, gate houses and gates, portable scale houses, scales, and tire wash facilities which will be relocated on-site during phases as necessary when landfilling operations are adjusted over the five phases. These facility locations are identified by Phase on the SEA-2 Plat. Minimal structures as depicted on the SEA-2 Plat would be associated with the three proposed, alternative recreation uses described above.

**H. Listing, If Known, of All Hazardous or Toxic Substances.**

Hazardous and/or toxic substances currently stored and contained on-site, and which will continue to be stored and used on the Application Property, are limited to products which are used for the general operation of the landfill, its equipment and vehicles and for landscape maintenance. These include: diesel fuel; petroleum products (such as engine and hydraulic oil, engine and transmission lubricants); hydrochlorite for treating leachate; and pesticides for landscape maintenance (hand-sprayed). Methods for use and disposal shall adhere to County, State and/or Federal law.

**I. Statement of Conformance with Applicable Ordinances, Regulations and Standards.**

This Application shall comply with all applicable ordinances, regulations and standards, with the exception of requested waivers and modifications as outlined below and identified on the SEA-2 Plat. This Application shall comply with the "General Standards" for all Special Exceptions and with "Standards" for the Category 2 (Landfills and Electrical Generating Facilities), Category 3 (Quasi-Public Uses, Private Clubs and Public Benefit Associations) and

Category 5 (Outdoor Baseball Hitting Ranges and Golf Driving Ranges) Special Exception uses set forth in the Zoning Ordinance. A detailed compliance analysis of the various "General Standards" and "Additional Standards" has been prepared by the Applicant and filed with County Staff on October 7, 2013.

The Applicant seeks a waiver of the dustless surface requirement for on-site roads, including for the initial gravel access road during Phases 1-4 and the subsequent gravel access proposed to be provided in Phase 5 through the post-closure period and for the Phase 6 active recreation uses. The upper and lower berm access roads also are proposed to be gravel. This waiver, which was granted previously by the Board, is appropriate given the unusually large site, the nature of the uses being proposed in the various phases and the fact that private vehicle access is strictly limited and controlled for landfill and for the other uses being proposed.

A waiver of the Countywide Trails Plan requirement for an eight-foot (8') wide trail along the east side of Furnace Road also is being requested. This waiver is appropriate due to the nature of the use, the lack of room between the right-of-way and the landfill berm, because such improvement would not connect to any portion of an established trail system, and a trail exists on the west side of Furnace Road along the frontage of Parcels 12 and 13.

As described in detail on the SEA-2 Plat, the Applicant is requesting modification of the transitional screening requirement and waiver of the barrier requirements in favor of those shown on the SEA-2 Plat in accordance with Article 13, Section 13-305, subparagraphs -3, -5, -7, -11, -12 and -14, of the Zoning Ordinance. A minimum fifty foot-wide treed buffer shall be provided along the entire northern property boundary and consist of a combination of existing, mature trees and supplemental plantings which shall be installed and maintained by the Applicant in accordance with that shown on SEA-2 Plat Sheet 21. Minimal grading shall be permitted within this buffer area, as determined by UFMD, as necessary for installation of the below trail and/or other improvements. Adjacent to this buffer area, a natural trail and any off-site trail connection, exercise stations along the trail, a multi-purpose open space area, a dog park, and picnic tables shall be provided at the sole option of and to the extent determined by the Lorton Valley HOA. At the sole option of the Lorton Valley HOA, the recreation uses shown may be eliminated or adjusted, provided that they do not encroach into the fifty foot wide buffer area. Lorton Valley HOA also may opt to accept the land without any improvements. In any event, this approximately 5.2-acre recreation area shall be subject to a conservation easement preventing removal of trees, except those that are dead or dying, as determined by UFMD.

Finally, as granted by the Board of Supervisors on January 8, 2007 in the previous SEA-1 approval, a waiver of Paragraph 9 of Section 9-205 of the Zoning Ordinance is requested to permit improvements as depicted on the SEA-2 Plat which are proposed after termination of

landfill operations and prior to DEQ release. These improvements would include all those shown on the SEA-2 Plat, such as the trailer, and green energy uses. A summary chart of requested waivers and modifications is included in this Application.



---

Francis A. McDermott  
Attorney for Applicant

# LORTON GREEN ENERGY PARK AND DEBRIS LANDFILL

## SPECIAL EXCEPTION AMENDMENT PLAT

SEA 80-LV-061-2  
FAIRFAX COUNTY, VIRGINIA

MARCH 22, 2013  
REVISED MAY 14, 2013  
REVISED SEPTEMBER 11, 2013  
REVISED OCTOBER 7, 2013  
REVISED NOVEMBER 1, 2013  
REVISED DECEMBER 10, 2013  
REVISED JANUARY 22, 2014  
REVISED FEBRUARY 20, 2014  
REVISED APRIL 4, 2014  
REVISED JUNE 15, 2014  
REVISED JULY 14, 2014  
REVISED JULY 18, 2014  
REVISED JULY 23, 2014

**OWNER/APPLICANT**  
FURNACE ASSOCIATES, INC.  
11220 Assett Loop  
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Fax 703.378.0800

**ATTORNEY/AGENT**  
HUNTON & WILLIAMS LLP  
1751 Pinnacle Drive  
Suite 1700  
McLean, VA 22102  
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Fax 703.714.7410

**ENGINEER/LANDSCAPE ARCHITECT/PLANNER**  
THE BC CONSULTANTS  
12600 Fair Lakes Circle  
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Fairfax, VA 22033  
Telephone 703.449.8100  
Fax 703.449.8108

**ENGINEER/ENERGY CONSULTANTS**  
GEOSYNTEC CONSULTANTS  
9211 Arboretum Parkway  
Suite 200  
Richmond, VA 23236  
Telephone 804.767.2206  
Fax 804.767.2182

RECEIVED  
Department of Planning & Zoning

JUL 24 2014

Zoning Evaluation Division

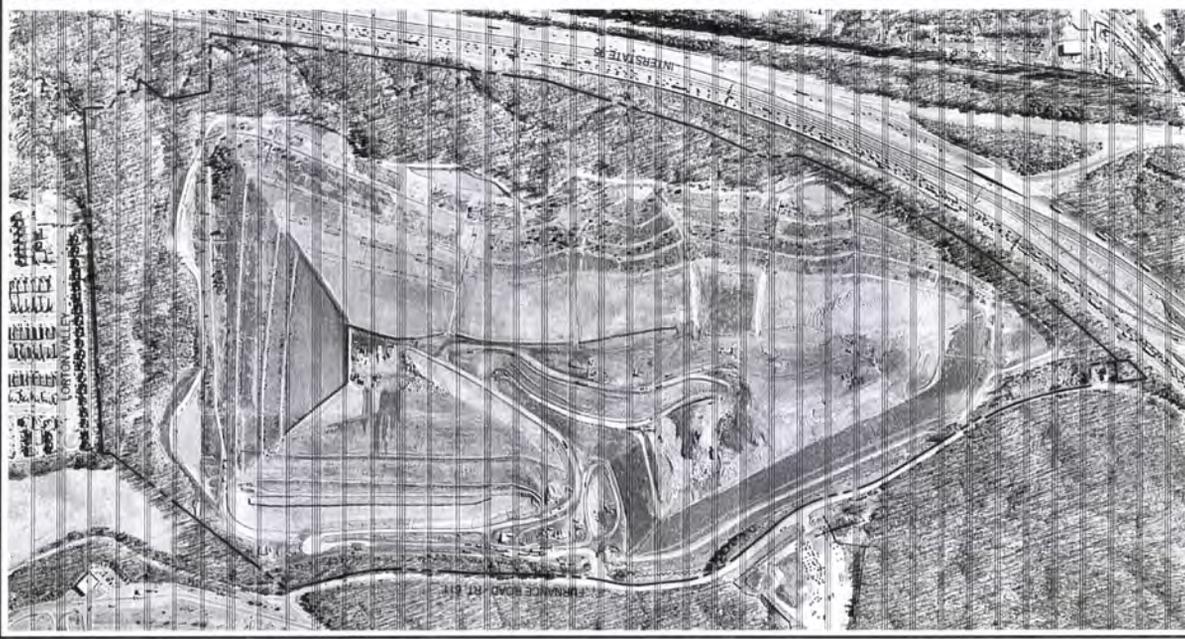


VICINITY MAP  
SCALE 1" = 1,000'

### SHEET INDEX

Sheet Number	Sheet Title
1	COVER SHEET
2	PHASING PLAN AND TABULATIONS
3	GENERAL NOTES AND COMMENTS
4	EXISTING CONDITIONS
5	EXISTING VEGETATION MAP
6	PHASE ONE OPERATIONS AREAS
7	PHASE TWO OPERATIONS AREAS
8	PHASE THREE OPERATIONS AREAS
9	PHASE FOUR OPERATIONS AREAS
10	PHASE FIVE OPERATIONS AREAS
11	PHASE FIVE - AT COMPLETION OF OPERATIONS
12	PHASE FIVE - AT COMPLETION OF OPERATIONS
13	PHASE FIVE - AT COMPLETION OF OPERATIONS
14	SITE DETAILS
15	SITE DETAILS
16	PHASE ONE LANDSCAPE PLAN
17	PHASE TWO LANDSCAPE PLAN
18	PHASE THREE LANDSCAPE PLAN
19	PHASE FOUR LANDSCAPE PLAN
20	PHASE FIVE LANDSCAPE PLAN
21	NORTHERN TRANSITIONAL SCREENING AREA
22	LANDSCAPE DETAILS
23	LANDSCAPE DETAILS
24	PHASE 5 TREE PRESERVATION PLAN
25	TREE PRESERVATION DETAILS
26	QUEUING AREAS
27	BMP PLAN
27A	BMP PLAN
28	OVERALL STORMWATER MANAGEMENT PLAN
29	OVERALL STORMWATER MANAGEMENT
30	STORMWATER MANAGEMENT POND 2
31	OUTFALL CROSS SECTIONS POND 2
32	STORMWATER MANAGEMENT POND 3
33	OUTFALL CROSS SECTIONS POND 3
34	STORMWATER MANAGEMENT POND 6
35	OUTFALL CROSS SECTIONS POND 6
36	STORMWATER MANAGEMENT POND 8
37	OUTFALL CROSS SECTIONS POND 8
38	STORMWATER MANAGEMENT POND 9
39	OUTFALL CROSS SECTIONS POND 9
40	OVERALL DRAINAGE AREA MAP
41	PHASE TWO LANDFILL OPERATIONS TRUCK TRAFFIC CIRCULATION
42	PHASE TWO LANDFILL OPERATIONS TRUCK TRAFFIC CIRCULATION
43	PHASE THREE LANDFILL OPERATIONS TRUCK TRAFFIC CIRCULATION
44	PHASE FOUR LANDFILL OPERATIONS TRUCK TRAFFIC CIRCULATION
45	PHASE FIVE LANDFILL OPERATIONS TRUCK TRAFFIC CIRCULATION
46	SIGHT DISTANCE
47	PHASE SIX - CATEGORY 3 AND/OR 5 END USES

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(703)449-8100 (703)449-8108 (Fax)  
www.bcconsultants.com



AERIAL PHOTOGRAPH

SCALE: 1"=500'

**SITE TABULATIONS:**

- GRASS SITE AREA (G.S.A.)
- EXISTING ZONING
- EXISTING USE
- PROPOSED USE (DURING LANDFILL OPERATIONS AND PRIOR TO "POST-CLOSURE PERIOD")
- PROPOSED USE (AFTER LANDFILL OPERATIONS, DURING "POST-CLOSURE PERIOD" AND CONTAINING RAINWATER RELEASE) (A)
- DEBRIS LANDFILL
- CATEGORY TWO DEBRIS LANDFILL AND ELECTRIC GENERATING FACILITIES (1)
- CATEGORY TWO DEBRIS LANDFILL AND POTENTIAL ELECTRIC GENERATING FACILITIES (CATEGORY TWO USES), CATEGORY THREE QUAS-PUBLIC USES AND/OR POTENTIAL ELECTRIC GENERATING FACILITIES (CATEGORY THREE USES) AND/OR POTENTIAL ELECTRIC GENERATING FACILITIES (CATEGORY THREE USES)
- 3,000 S.F.
- 0.0004
- 2,500 S.F.
- 1,300 S.F. & S (3)
- 0.00023
- 0.00012
- 2 (4)
- 2 (4)
- 0 (4)
- 0 (4)
- 42 (4)
- 42 (4)
- 34 (4)
- 34 (4)
- 78 (4)
- 78 (4)
- 40'
- 25'
- NOT APPLICABLE

- (1) PHASES 1 THROUGH 5.
- (2) PHASE 6 (DEBRIS LANDFILL, CLOSURE AND WINDA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) REGULATIONS).
- (3) PHASE 5 STRUCTURES TO BE REMOVED AT THE BEGINNING OF PHASE 6 (EXCEPT THE BASEBALL LITTING RANGE, IF ALLOWED BY DEQ).
- (4) BASED ON A REVIEW BY THE DIRECTOR.
- (5) USES SHOWN PRIOR TO DEQ RELEASE MAY BE PROVIDED ONLY AS MAY BE APPROVED BY DEQ.

**LEGEND:**

- A APPROXIMATE LOCATION OF POTENTIAL MULTI-PURPOSE OPEN SPACE AREA
- B APPROXIMATE LOCATION OF POTENTIAL DEQ PARK
- C APPROXIMATE LOCATION OF POTENTIAL EXERCISE STATIONS
- 100-YR. FLOODPLAIN
- LOC./P/A
- APPROXIMATE LOCATION OF PROPOSED VECTORIZED LANDFILL BERM
- MAXIMUM POTENTIAL AREAS FOR SOLAR PANELS IN PHASE 5 AND/OR PHASE 6 (BY APPLICANT/OWNER)

CURVE TABLE	STATION	CHORD BEARING	CHORD DISTANCE	ARC BEARING	ARC DISTANCE
1	1+00.00	S 89° 58' 00" W	100.00	89° 58' 00"	100.00
2	1+100.00	S 89° 58' 00" W	100.00	89° 58' 00"	100.00
3	1+200.00	S 89° 58' 00" W	100.00	89° 58' 00"	100.00
4	1+300.00	S 89° 58' 00" W	100.00	89° 58' 00"	100.00
5	1+400.00	S 89° 58' 00" W	100.00	89° 58' 00"	100.00
6	1+500.00	S 89° 58' 00" W	100.00	89° 58' 00"	100.00
7	1+600.00	S 89° 58' 00" W	100.00	89° 58' 00"	100.00
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**SITE TABULATIONS:**

- FAIRFAX COUNTY TAX ASSESSMENT MAPS
- 113-1-3 (11) PARCELS 1, 2 AND 4
- 249 82 8-4 (118/2/08 114)
- DEBRIS LANDFILL
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- 42 (4)
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- 78 (4)
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**LORTON GREEN ENERGY PARK & DEBRIS LANDFILL**  
 SPECIAL EXCEPTION AMENDMENT  
 PHASING PLAN AND TABULATIONS  
 MONTGOMERY COUNTY, VIRGINIA  
 PROJECT NO. 2009-05-11

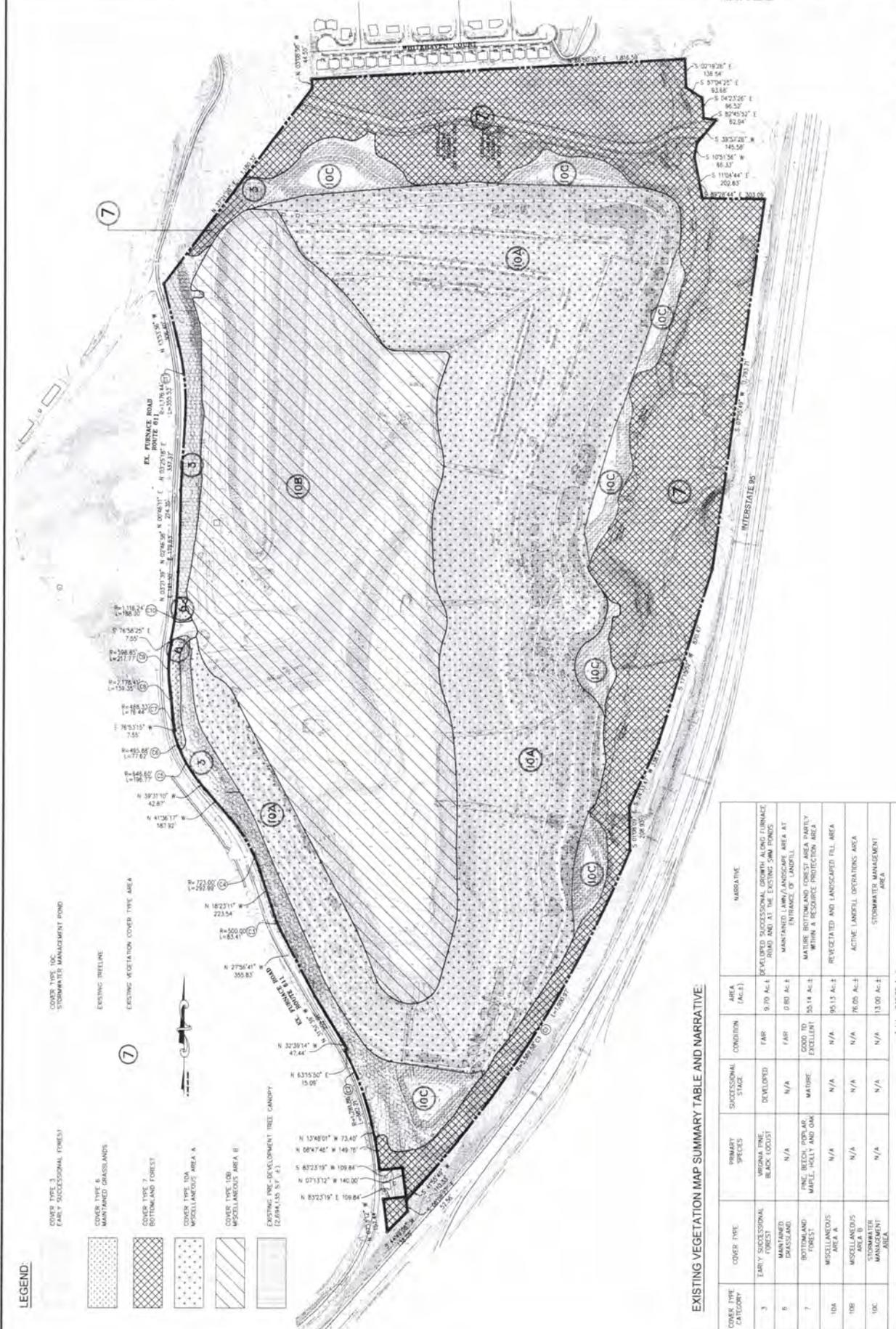
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SCALE: AS SHOWN	DRAWN BY: CAD
SHEET 7 OF 47	DATE: 11-11-2013
PROJECT: LORTON GREEN ENERGY PARK & DEBRIS LANDFILL	PROJECT NO.: 2009-05-11
FILE NO.: 00117.06.00	SCALE: 1"=500'







DESIGNED BY PER	MARKY VEGNON
CHECKED BY CAD	MARKY VEGNON
SCALE	AS SHOWN
DATE	07/20/11
SHEET NO.	OF 47
CAD NAME	251117M.dwg
LAYOUT	swm
FILE NO.	00117120-00



**LEGEND:**

	COVER TYPE 3 EARLY SUCCESSIONAL (TIMES)
	COVER TYPE 5 MAINTAINED GRASSLANDS
	COVER TYPE 7 BOTTOMLAND FOREST
	COVER TYPE 10A MISCELLANEOUS AREA A
	COVER TYPE 10B MISCELLANEOUS AREA B
	COVER TYPE 10C EXISTING FIRE-DEVELOPMENT TREE CANOPY (ZORNAIUS S.P.#)

COVER TYPE 10C  
STORMWATER MANAGEMENT POND

EXISTING TREELINE

EXISTING VEGETATION COVER TYPE AREA

**EXISTING VEGETATION MAP SUMMARY TABLE AND NARRATIVE:**

COVER TYPE CATEGORY	COVER TYPE	PRIMARY SPECIES	SUCCESSIONAL STAGE	CONDITION	AREA (AC.)	NARRATIVE
3	EARLY SUCCESSIONAL FOREST	VERNAL PINE BLACK LOCUST	DEVELOPED	FAB	9.70 AC.±	DEVELOPED SUCCESSIONAL FOREST ALONG FURNACE ROAD AND AT THE EXISTING OWM POND
5	MAINTAINED GRASSLAND	N/A	N/A	FAB	0.80 AC.±	MAINTAINED LAMB/LANGSCAPE AREA AT ENTRANCE OF LANDFILL
7	BOTTOMLAND FOREST	PINE, BEECH, POPLAR, MAPLE, HOLLY AND OAK	MATURE	GOOD TO EXCELLENT	35.14 AC.±	MATURE BOTTOMLAND FOREST AREA PARITY WITHIN A RESOURCE PROTECTION AREA
10A	MISCELLANEOUS AREA A	N/A	N/A	N/A	95.15 AC.±	REVEGETATED AND LANDSCAPED TIL AREA
10B	MISCELLANEOUS AREA B	N/A	N/A	N/A	16.05 AC.±	ACTIVE LANDFILL OPERATIONS AREA
10C	STORMWATER MANAGEMENT AREA	N/A	N/A	N/A	13.00 AC.±	STORMWATER MANAGEMENT AREA

Total: 248.82 AC.±

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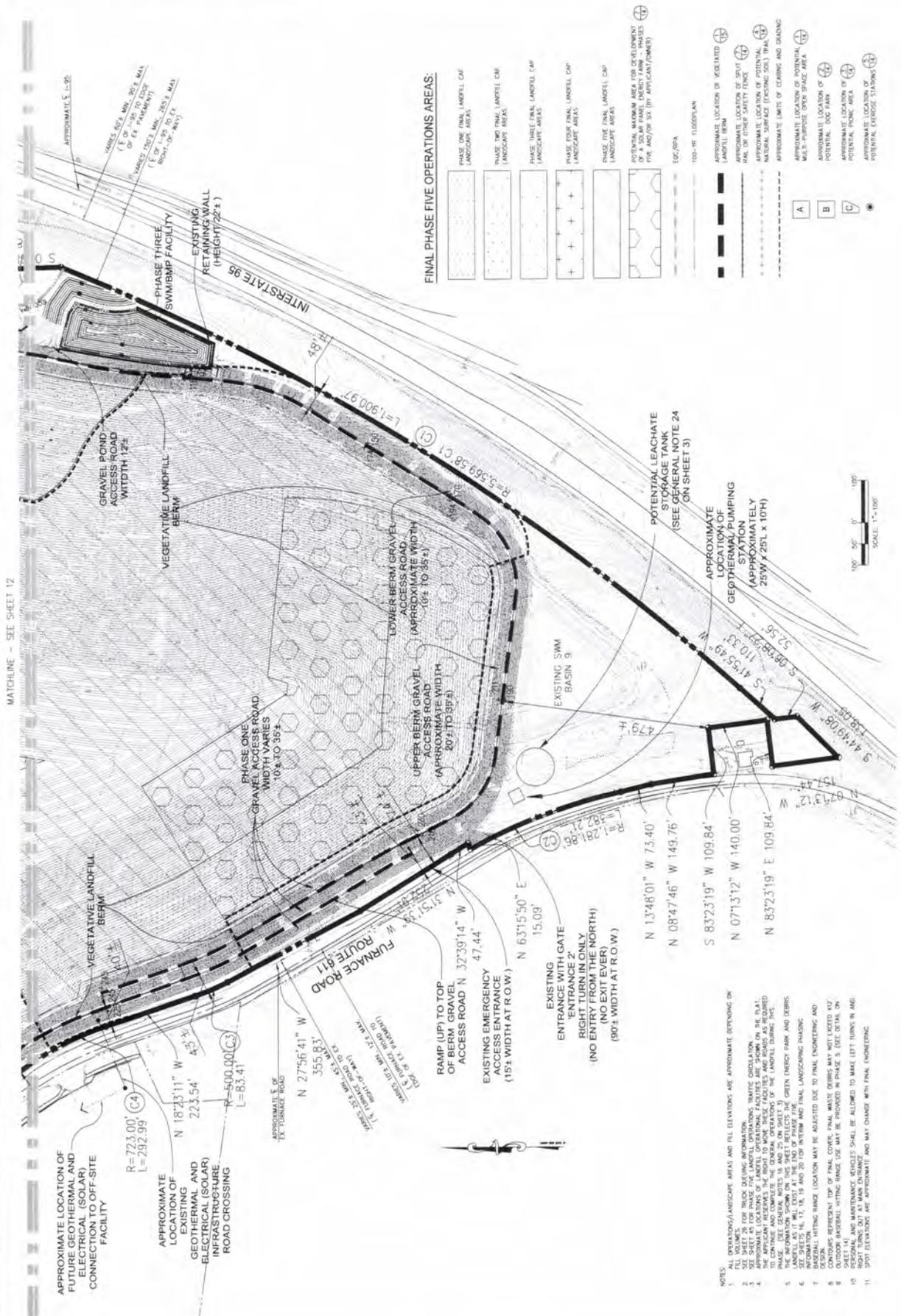








MATCHLINE - SEE SHEET 12



APPROXIMATE LOCATION OF FUTURE GEOTHERMAL AND ELECTRICAL (SOLAR) CONNECTION TO OFF-SITE FACILITY

APPROXIMATE LOCATION OF EXISTING AND FUTURE GEOTHERMAL AND ELECTRICAL (SOLAR) INFRASTRUCTURE ROAD CROSSING

APPROXIMATE LOCATION OF EXISTING SWAMP/BMP FACILITY

EXISTING RETAINMENT WALL (HEIGHT 72.4')

LOWER BERM GRAVEL ACCESS ROAD (APPROXIMATE WIDTH 10' ± TO 35' ±)

UPPER BERM GRAVEL ACCESS ROAD (APPROXIMATE WIDTH 20' ± TO 35' ±)

PHASE ONE GRAVEL ACCESS ROAD WIDTH VARIES 10' ± TO 35' ±

PHASE THREE SWAMP/BMP FACILITY

POTENTIAL LEACHATE STORAGE TANK (SEE GENERAL NOTE 24 (ON SHEET 3))

APPROXIMATE LOCATION OF GEOTHERMAL PUMPING STATION (APPROXIMATELY 25W X 25L X 10H)

EXISTING SWAMP BASIN 3

EXISTING ENTRANCE WITH GATE ENTRANCE 2 RIGHT TURN IN ONLY (NO ENTRY FROM THE NORTH) (NO ENTRY TO EXIT EYES) (80' ± WIDTH AT R.O.W.)

EXISTING EMERGENCY ACCESS ENTRANCE (15' ± WIDTH AT R.O.W.)

RAMP (UP) TO TOP OF BERM GRAVEL ACCESS ROAD N 32°30'14" W 47.44'

N 63°15'50" E 15.03'

N 13°48'01" W 73.40'

N 08°47'46" W 149.76'

S 83°23'19" W 109.84'

N 07°13'12" W 140.00'

N 83°23'19" E 109.84'

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S 44°02'08" W 128.05'

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R=1,281.86' L=182.21'

R=5,569.98' L=1,900.97'

R=723.00' L=292.99'

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N 13°48'01" W 73.40'

N 08°47'46" W 149.76'

S 83°23'19" W 109.84'

N 07°13'12" W 140.00'

N 83°23'19" E 109.84'

N 07°13'12" W 157.44'

S 44°02'08" W 128.05'

S 4°55'49" W 110.33'

S 08°02'27" E 32.56'

S 110°33' E 47.91'

R=1,281.86' L=182.21'

R=5,569.98' L=1,900.97'

R=723.00' L=292.99'

N 18°23'11" W 273.54'

N 27°56'41" W 355.83'

N 32°30'14" W 47.44'

N 63°15'50" E 15.03'

N 13°48'01" W 73.40'

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S 110°33' E 47.91'

R=1,281.86' L=182.21'

R=5,569.98' L=1,900.97'

R=723.00' L=292.99'

APPROXIMATE LOCATION OF EXISTING SWAMP/BMP FACILITY

EXISTING RETAINMENT WALL (HEIGHT 72.4')

LOWER BERM GRAVEL ACCESS ROAD (APPROXIMATE WIDTH 10' ± TO 35' ±)

UPPER BERM GRAVEL ACCESS ROAD (APPROXIMATE WIDTH 20' ± TO 35' ±)

PHASE ONE GRAVEL ACCESS ROAD WIDTH VARIES 10' ± TO 35' ±

PHASE THREE SWAMP/BMP FACILITY

POTENTIAL LEACHATE STORAGE TANK (SEE GENERAL NOTE 24 (ON SHEET 3))

APPROXIMATE LOCATION OF GEOTHERMAL PUMPING STATION (APPROXIMATELY 25W X 25L X 10H)

EXISTING SWAMP BASIN 3

EXISTING ENTRANCE WITH GATE ENTRANCE 2 RIGHT TURN IN ONLY (NO ENTRY FROM THE NORTH) (NO ENTRY TO EXIT EYES) (80' ± WIDTH AT R.O.W.)

EXISTING EMERGENCY ACCESS ENTRANCE (15' ± WIDTH AT R.O.W.)

RAMP (UP) TO TOP OF BERM GRAVEL ACCESS ROAD N 32°30'14" W 47.44'

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R=1,281.86' L=182.21'

R=5,569.98' L=1,900.97'



**14** MULTI-PURPOSE OPEN SPACE  
DESIGNATED MULTI-PURPOSE OPEN SPACE AREA APPROXIMATELY 12,250 S.F. NO SCALE



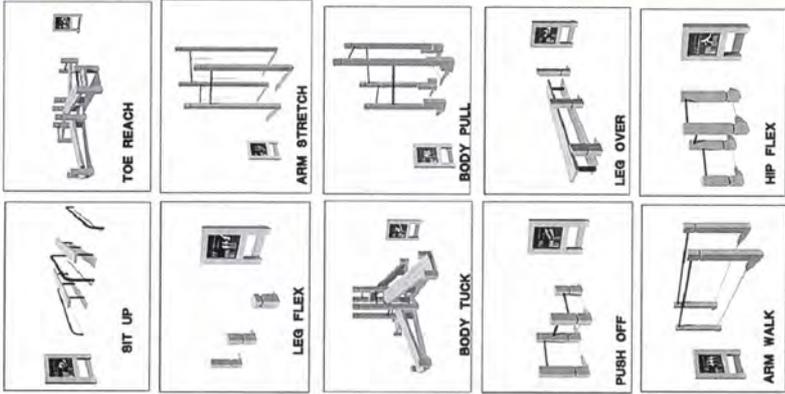
**14** DOG PARK  
FENCED AREA APPROXIMATELY 2,625 S.F. NO SCALE



**14** PICNIC AREA  
DESIGNATED AREA OR INDIVIDUAL PICNIC TABLES MAY BE LOCATED THROUGHOUT THE RECREATION AREA. NO SCALE



**14** NATURAL SURFACE EXISTING SOIL TRAIL  
(MINIMUM 10' WIDE TRAIL) NO SCALE



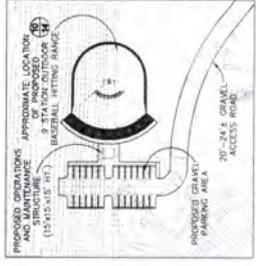
**6** EXERCISE STATIONS  
AS MANUFACTURED BY COLUMBIA CASCADE (OR AN APPROVED EQUAL) SEE PLAN FOR APPROXIMATE STATION LOCATIONS.  
ALL EQUIPMENT IS MADE FROM RECYCLED PLASTIC.



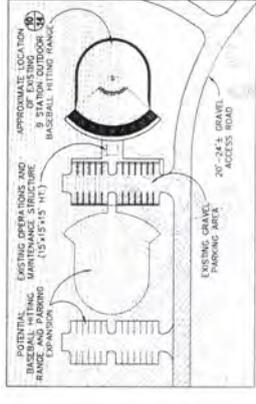
**14** POTENTIAL SOLAR PANEL  
APPROXIMATELY 10,000 S.F. ELEVATION AREA AND APPROXIMATELY 15% SLOPE. THE SOUTHERN SLOPE AREAS AVAILABLE FOR DEVELOPMENT OF A SOLAR PANEL FARM WITH APPROXIMATELY 25' PANEL SPACING. DISTANCES ARE NOT DIMENSIONED.



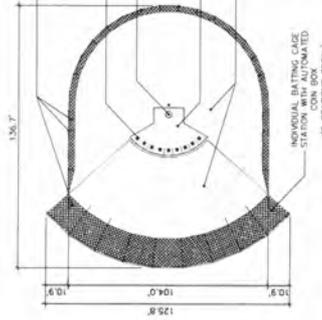
**14** SPLIT RAIL OR SAFETY FENCE  
ALL FENCES TO BE 6' HIGH WITH MESH BACKING.



**9** OUTDOOR BASEBALL HITTING RANGE - PHASE 5  
**14** CONCEPT LAYOUT - PHASE 5  
OUTDOOR BASEBALL HITTING RANGE MAY BE PROVIDED AT THE END OF THE TRAIL (DO NOT AND LAYOUT MAY BE ADJUSTED FROM THAT SHOWN.



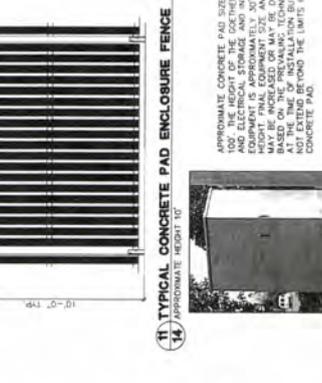
**9** OUTDOOR BASEBALL HITTING RANGE - PHASE 6  
**14** CONCEPT LAYOUT - PHASE 6  
OUTDOOR BASEBALL HITTING RANGE MAY BE PROVIDED DURING PHASE 6 AND MAY INCLUDE A SECOND, INNE STATION BATTING RANGE LOCATION AND LAYOUT MAY BE ADJUSTED AT FINAL ENGINEERING AND DESIGN.



**9** STATION OUTDOOR BASEBALL HITTING RANGE  
**14** TYPICAL LAYOUT MAY BE ADJUSTED AT FINAL ENGINEERING AND DESIGN. NO SCALE



**14** TYPICAL GEOTHERMAL AND ELECTRICAL STORAGE AND INVERTER EQUIPMENT. NO SCALE



**14** TYPICAL CONCRETE PAD ENCLOSURE FENCE. APPROXIMATE HEIGHT 10'. NO SCALE

**SPECIAL EXCEPTION AMENDMENT**  
**SITE DETAILS**  
**LORTON GREEN ENERGY PARK & DEBRIS LANDFILL**

REVISIONS

NO. 1	DATE	BY	DESCRIPTION
1	11-11-2014	...	...
2	11-11-2014	...	...
3	11-11-2014	...	...
4	11-11-2014	...	...
5	11-11-2014	...	...
6	11-11-2014	...	...
7	11-11-2014	...	...
8	11-11-2014	...	...
9	11-11-2014	...	...
10	11-11-2014	...	...
11	11-11-2014	...	...
12	11-11-2014	...	...
13	11-11-2014	...	...
14	11-11-2014	...	...

DESIGNED BY: CAD  
CHECKED BY: NO  
DATE: MARCH 22, 2013  
SCALE: HWS AS SHOWN  
SHEET: 14 OF 47  
CD: NO. 584-801-17-001-2  
PROJECT: DEBRIS LANDFILL  
LAYOUT: 14  
FILE NO.: 050117-08-00

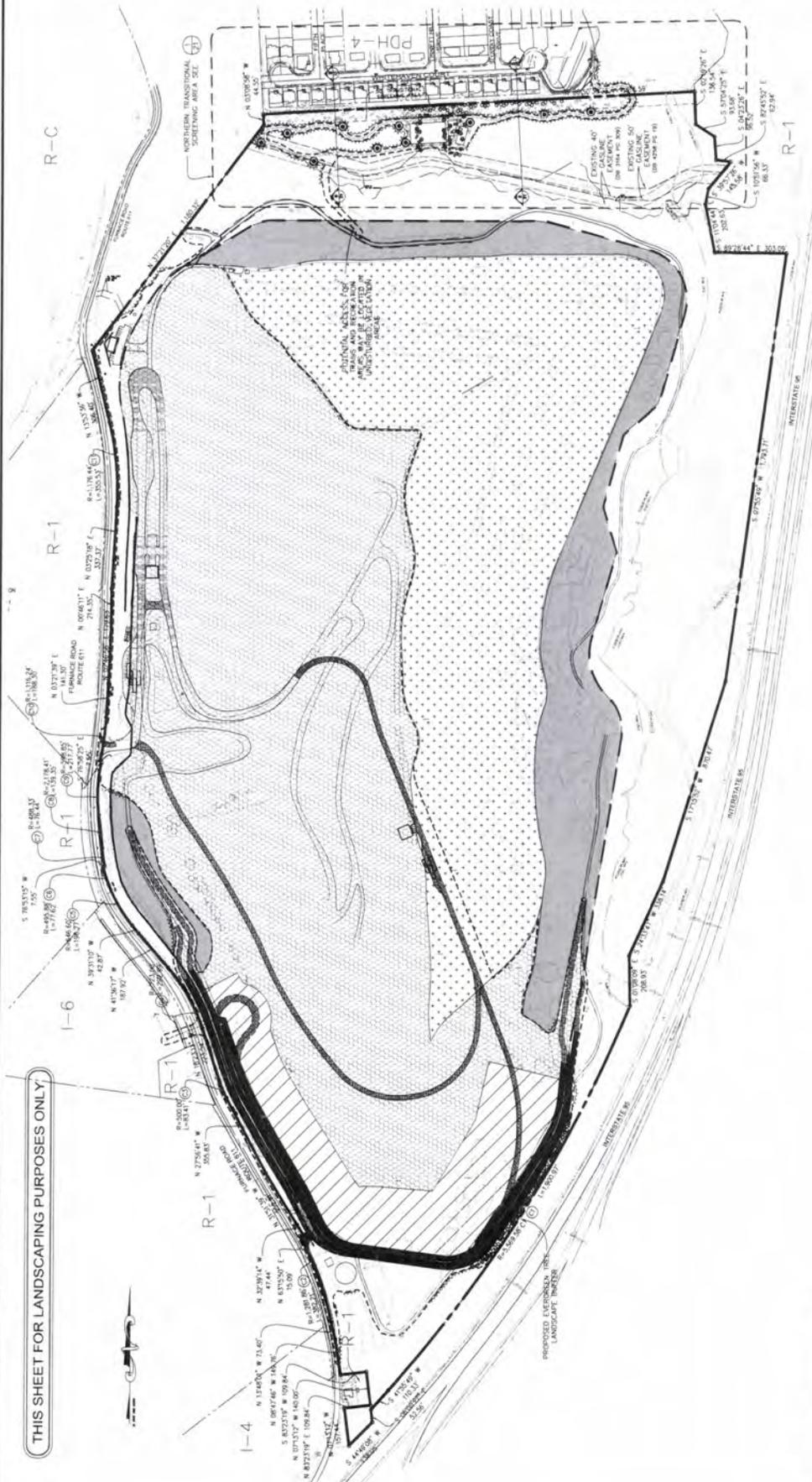
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MARKET REVENUE DISTRICT  
FAIRFAX COUNTY, VIRGINIA  
20109



THIS SHEET FOR LANDSCAPING PURPOSES ONLY



PHASE ONE LANDSCAPE AREAS:

- UNDESIRABLE VEGETATION (EXCEPT FOR BERM ACCESS ROADS AND RAMP)
- EXISTING VEGETATION PLUS PROPOSED EMERGENCY AND REDUNDANT TREES, SHRUBS AND BUSHES
- LANDFILL OPERATIONS AND PROPOSED INTERIM VEGETATIVE COVER
- PROPOSED PHASE ONE FINAL CAR WASH/LOWER LANDSCAPE AREA

- APPROXIMATE LIMITS OF OPERATIONS AND LANDSCAPE AREAS
- APPROXIMATE LOCATION OF PROPOSED PHASE ONE REGISTERED LANDFILL BERM
- APPROXIMATE LIMITS OF CLEANING AND GRADING
- EXISTING TIELINE
- PROPOSED TIELINE
- ENVIRONMENTAL QUALITY CORRIDOR/ RESOURCE PROTECTION AREA (EQC/RMP)
- FLOODPLAIN
- EXISTING TREES
- PROPOSED DECIDUOUS AND EVERGREEN TREES AND SHRUBS

NOTE: ALL OPERATIONS/LANDSCAPE AREAS AND TIE ELEVATIONS ARE APPROXIMATE DEPENDING ON TIE VOLUMES



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**LORTON GREEN ENERGY PARK & DEBRIS LANDFILL**  
 SPECIAL EXCEPTION AMENDMENT  
 PHASE ONE LANDSCAPE PLAN  
 MOUNT VERMION DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

DESIGNED BY: R.R.	DATE: 02-11-2014
DRAWN BY: CAD	DATE: 02-11-2014
CHECKED BY: NBI	DATE: 02-11-2014
SCALE: 1"=200'	DATE: 02-11-2014
SHEET: 16 OF 47	DATE: 02-11-2014
CD: NO. SEA-801-17-001-2	DATE: 02-11-2014
CAD NAME: SEA17LSC-PH1	DATE: 02-11-2014
LAYOUT: LSC-PH1	DATE: 02-11-2014
FILE NO: 0511709-00	DATE: 02-11-2014







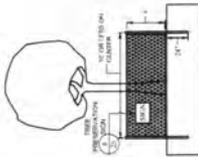












**1 TREE PROTECTION FENCE**  
25 NOT TO SCALE

1. PRIOR TO ANY CONSTRUCTION ACTIVITY ALL INDIVIDUAL AND GROUP TREES TO BE PRESERVED SHALL BE IDENTIFIED AND PRESENTATION SHALL BE PROTECTED WITH TREE PROTECTION FENCING POSITIONED DIRECTLY IN THE ROOT PROTECTION AREA TO PROVIDE FOR STABILITY ON LAST EXISTING TREES WITHIN THE DISTURBED AREA.

2. TREES WITHIN THE DISTURBED AREA SHALL BE IDENTIFIED AND TAGGED TO CONSIST OF FOUR FOOT 4-GUAGE WOODEN FENCE ATTACHED TO 4-INCH DIA. POSTS AND 4-INCH DIA. POSTS SHALL BE INSTALLED IN 10 FEET WHERE APPROPRIATE DANGER ZONE.

3. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

4. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

5. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

6. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

7. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

8. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

9. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

10. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

11. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

12. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

13. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

14. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

15. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

16. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

17. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

18. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

19. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

20. FENCE SHALL BE 4 FEET HIGH WITH APPROXIMATE 1/2 INCH CLEARANCE.

**2 ROOT PRUNING**  
25 NOT TO SCALE

1. PRIOR TO ANY CONSTRUCTION ACTIVITY ALL TREES MARKED FOR PRESERVATION AND THE LIMITS OF CLEARING AND GRADING SHALL BE ROOT PRUNED WHERE SHOWN ON THE PLAN.

2. ROOT PRUNING SHALL BE CONDUCTED USING A TREEMORER OR VIBRATION PLOW.

3. THE ROOT PRUNING TRENCH SHALL BE A MAXIMUM OF 6 INCHES DEEP AND SHALL BE MANDATELY BACK FILLED WITH APPROVED MATERIAL.

4. ROOT PRUNING SHALL BE CONDUCTED UNDER THE SUPERVISION OF A CERTIFIED ARBORIST.

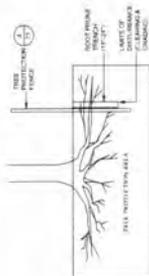
**3 PROTECTIVE MULCHING**  
25 NOT TO SCALE

1. MULCH SHALL NOT TOUCH THE BASE OF THE TREE.

2. MULCH SHALL COVER AS MUCH OF THE ENTIRE CRITICAL ROOT ZONE AS POSSIBLE UP TO 1/2 FROM THE LIMITS OF CLEARING AND GRADING.

3. MULCH SHALL CONSIST OF A WOODY MATERIAL THAT IS 2-4 INCHES IN SIZE OR SHREDED OR OTHER APPROVED MATERIAL.

4. MULCH SHALL NOT TOUCH THE BASE OF THE TREE.



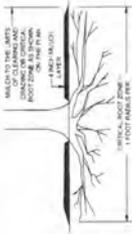
**4 TREE PRESERVATION SIGN**  
25 NOT TO SCALE

1. MULCH SHALL NOT TOUCH THE BASE OF THE TREE.

2. MULCH SHALL COVER AS MUCH OF THE ENTIRE CRITICAL ROOT ZONE AS POSSIBLE UP TO 1/2 FROM THE LIMITS OF CLEARING AND GRADING.

3. MULCH SHALL CONSIST OF A WOODY MATERIAL THAT IS 2-4 INCHES IN SIZE OR SHREDED OR OTHER APPROVED MATERIAL.

4. MULCH SHALL NOT TOUCH THE BASE OF THE TREE.



**5 TREE PRESERVATION SIGN**  
25 NOT TO SCALE

1. MULCH SHALL NOT TOUCH THE BASE OF THE TREE.

2. MULCH SHALL COVER AS MUCH OF THE ENTIRE CRITICAL ROOT ZONE AS POSSIBLE UP TO 1/2 FROM THE LIMITS OF CLEARING AND GRADING.

3. MULCH SHALL CONSIST OF A WOODY MATERIAL THAT IS 2-4 INCHES IN SIZE OR SHREDED OR OTHER APPROVED MATERIAL.

4. MULCH SHALL NOT TOUCH THE BASE OF THE TREE.

**TREE PRESERVATION AREA KEEP OUT**

NO EQUIPMENT OR MATERIALS ARE TO BE STORED OR DELIVERED WITHIN THE AREA. TRAFFIC, CONSTRUCTION EQUIPMENT AND PERSONNEL IS PROHIBITED FROM ENTERING THE AREA UNLESS NECESSARY FOR EMERGENCY CONTACT SERVICES & TELEPHONE NUMBERED STRICTLY ENFORCED.

**6 TREE PRESERVATION SIGN**  
25 NOT TO SCALE

1. MULCH SHALL NOT TOUCH THE BASE OF THE TREE.

2. MULCH SHALL COVER AS MUCH OF THE ENTIRE CRITICAL ROOT ZONE AS POSSIBLE UP TO 1/2 FROM THE LIMITS OF CLEARING AND GRADING.

3. MULCH SHALL CONSIST OF A WOODY MATERIAL THAT IS 2-4 INCHES IN SIZE OR SHREDED OR OTHER APPROVED MATERIAL.

4. MULCH SHALL NOT TOUCH THE BASE OF THE TREE.

**7 TREE PRESERVATION SIGN**  
25 NOT TO SCALE

1. MULCH SHALL NOT TOUCH THE BASE OF THE TREE.

2. MULCH SHALL COVER AS MUCH OF THE ENTIRE CRITICAL ROOT ZONE AS POSSIBLE UP TO 1/2 FROM THE LIMITS OF CLEARING AND GRADING.

3. MULCH SHALL CONSIST OF A WOODY MATERIAL THAT IS 2-4 INCHES IN SIZE OR SHREDED OR OTHER APPROVED MATERIAL.

4. MULCH SHALL NOT TOUCH THE BASE OF THE TREE.

**TREE CONSERVATION REQUIREMENTS:**

IN ACCORDANCE WITH THE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL (PFM) TREE CONSERVATION REQUIREMENTS (SECTION 12-2000), TREE CONSERVATION PLANS SHALL BE SUBMITTED AS PART OF FIRST SITE PLAN SUBMISSION. THE SUBMISSION WILL PROVIDE AN EXISTING VEGETATION MAP, TREE PRESERVATION TARGET CALCULATIONS AND NARRATIVE, 10-YEAR TREE CANOPY REQUIREMENTS AND CALCULATIONS, TREE REPLACEMENT TREES, THE TREE INVENTORY AND CONDITION ANALYSIS SHALL IDENTIFY ALL TREES 12 INCHES OR GREATER IN DIAMETER, ALL TREES IN POOR CONDITION (PFM SECTION 12-20007.2A(2)), ALL HAZARDOUS TREES (PFM SECTION 12-20007.2A(2)), AND ALL DEAD TREES WITHIN THE PROTECTED ROOT PROTECTION FENCING AREA. TREE REMOVAL, PRUNING, FERTILIZATION, ETC. WILL BE RECOMMENDED.

A MONITORING OF THE TREE INVENTORY AND CONDITIONS ANALYSIS SUBMISSION MAY BE REQUESTED IF THE PLANS CLEARLY MEET OR EXCEED THE MINIMUM LEVEL OF TREE PRESERVATION IDENTIFIED BY TREE PRESERVATION TARGET PROVISION OF PFM SECTION 12-503.3.

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**LORTON GREEN ENERGY PARK & DEBRIS LANDFILL**  
SPECIAL EXCEPTION AMENDMENT  
TREE PRESERVATION DETAILS  
FAIRFAX COUNTY, VIRGINIA

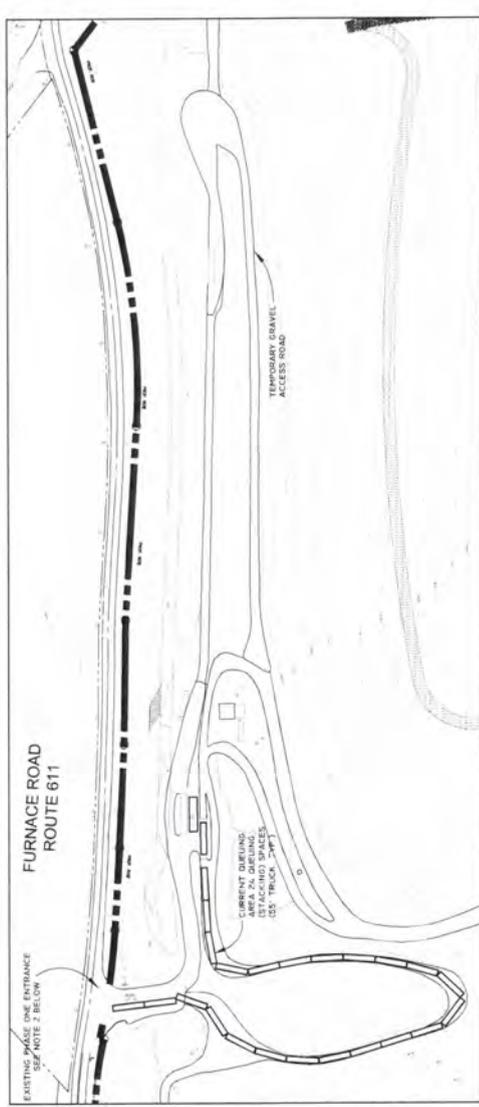
DESIGNED BY: P.L.R.	DATE: 08-11-2011
CHECKED BY: CAD	DATE: 08-11-2011
SCALE: 1/8" = 1'-0"	DATE: 08-11-2011
SHEET: 25 OF 47	DATE: 08-11-2011
PROJECT: LORTON GREEN ENERGY PARK & DEBRIS LANDFILL	DATE: 08-11-2011
CLIENT: FAIRFAX COUNTY	DATE: 08-11-2011
LOCATION: 11220 ASSETT LANE, FAIRFAX COUNTY, VA 22033	DATE: 08-11-2011
PROJECT NO: 08-11-2011	DATE: 08-11-2011
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DATE: 08-11-2011	DATE: 08-11-2011
SCALE: 1/8" = 1'-0"	DATE: 08-11-2011
SHEET: 25 OF 47	DATE: 08-11-2011
PROJECT: LORTON GREEN ENERGY PARK & DEBRIS LANDFILL	DATE: 08-11-2011
CLIENT: FAIRFAX COUNTY	DATE: 08-11-2011
LOCATION: 11220 ASSETT LANE, FAIRFAX COUNTY, VA 22033	DATE: 08-11-2011
PROJECT NO: 08-11-2011	DATE: 08-11-2011
DATE: 08-11-2011	DATE: 08-11-2011
SCALE: 1/8" = 1'-0"	DATE: 08-11-2011
SHEET: 25 OF 47	DATE: 08-11-2011
PROJECT: LORTON GREEN ENERGY PARK & DEBRIS LANDFILL	DATE: 08-11-2011
CLIENT: FAIRFAX COUNTY	DATE: 08-11-2011
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PROJECT NO: 08-11-2011	DATE: 08-11-2011
DATE: 08-11-2011	DATE: 08-11-2011
SCALE: 1/8" = 1'-0"	DATE: 08-11-2011
SHEET: 25 OF 47	DATE: 08-11-2011
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DATE: 08-11-2011	DATE: 08-11-2011
SCALE: 1/8" = 1'-0"	DATE: 08-11-2011
SHEET: 25 OF 47	DATE: 08-11-2011
PROJECT: LORTON GREEN ENERGY PARK & DEBRIS LANDFILL	DATE: 08-11-2011
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SCALE: 1/8" = 1'-0"	DATE: 08-11-2011
SHEET: 25 OF 47	DATE: 08-11-2011
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SCALE: 1/8" =	

**BC Consultants**  
 Planners - Engineers - Surveyors - Landscape Architects  
 12000 Fair Lakes Circle, Suite 100, Fairfax, VA 22033  
 (703)449-8100 (703)449-8108 (Fax)  
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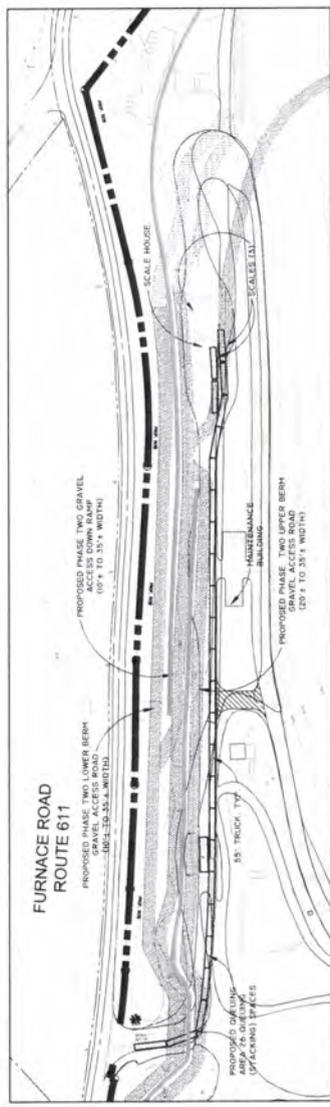


**LORTON GREEN ENERGY PARK & DEBRIS LANDFILL**  
 SPECIAL EXCEPTION AMENDMENT  
 QUEUING AREAS

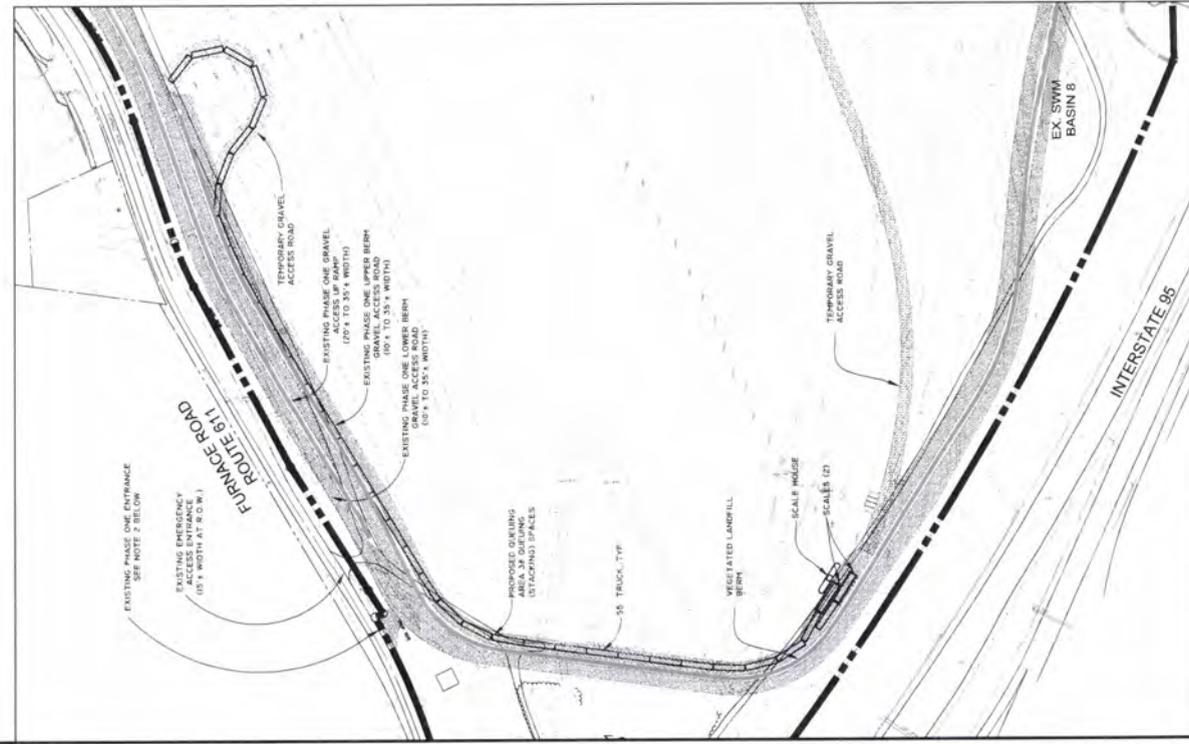
DESIGNED BY: CAD	DATE: 1-11-2014
DRAWN BY: NS	DATE: 1-11-2014
CHECKED BY: NS	DATE: 1-11-2014
DATE: MARCH 22, 2013	
SCALE: 1" = 100'	
SHEET: 26 OF 47	
CD NO. SA-BOLAN-001-2	
CAD NAME: S5117QUEING	
LAYOUT: QUEUING AREAS	
FILE NO.: 00117-00-00	



BEGINNING OF PHASE ONE ENTRANCE QUEUING AREAS  
 SCALE 1"=100'



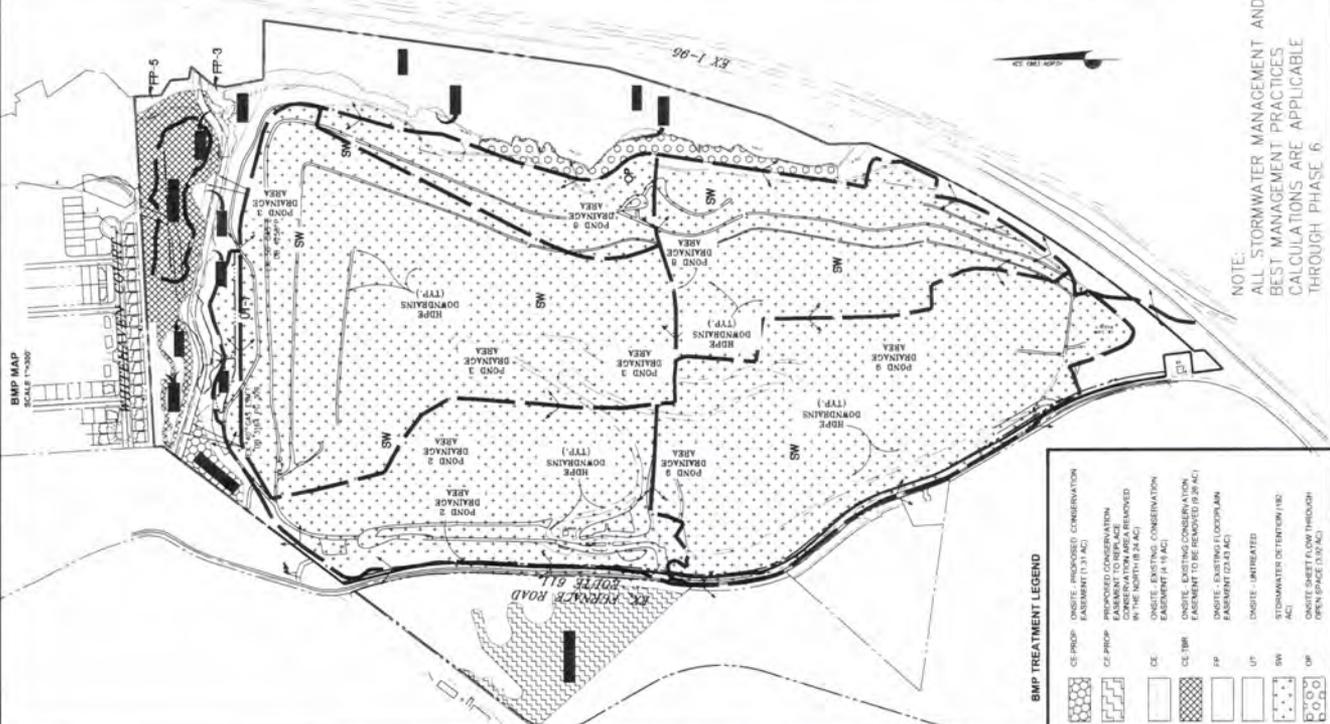
END OF PHASE ONE ENTRANCE AND EXIT QUEUING AREAS  
 SCALE 1"=100'



PHASE TWO THROUGH FIVE ENTRANCE QUEUING AREA  
 SCALE 1"=100'

- NOTE
- SEE SHEETS 41 THROUGH 45 FOR ADDITIONAL INFORMATION CONCERNING LANDFILL OPERATIONS TRAFFIC CIRCULATION.
  - VEHICULAR ACCESS AT THE SOUTHERN ENTRANCE IS RIGHT TURN ONLY (NO LEFT) AND IS LIMITED TO TRUCKS ONLY.
  - AT THE NORTHERN ENTRANCE TRUCKS MAY RIGHT TURN ONLY AND LEFT TURN OUT ONLY ALL DURING ALL PHASES.
  - INTERNAL DETAILS SHOWN ON THIS SHEET MAY BE ADJUSTED BASED ON OPERATIONS NEEDS AS DETERMINED BY THE APPLICANT.





**BMP TREATMENT LEGEND**

	PROPOSED CONSERVATION EASEMENT (1:1) AC
	PROPOSED CONSERVATION EASEMENT TO REPLACE EXISTING CONSERVATION EASEMENT (1:1) AC
	EXISTING CONSERVATION EASEMENT (1:1) AC
	EXISTING CONSERVATION EASEMENT TO BE REMOVED (2:1) AC
	EXISTING CONSERVATION EASEMENT (2:1) AC
	DETENTION
	STORMWATER DETENTION (1:1) AC
	ONSITE SHEET FLOW THROUGH OPEN SPACE (3:1) AC

NOTE:  
 ALL STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES CALCULATIONS ARE APPLICABLE THROUGH PHASE 6

**CHESAPEAKE BAY PRESERVATION ORDINANCE AND BMP NARRATIVE**

CHAPTER 114 OF THE FAIRFAX COUNTY CODE DEFINES REDEVELOPMENT AS THE RECONSTRUCTION, REPAIR, ALTERATION, IMPROVEMENT, OR REFINISHING OF AN EXISTING STRUCTURE OR THE CONSTRUCTION OF A NEW STRUCTURE ON A SITE THAT HAS A NET INCREASE IN IMPERVIOUS AREA BY THE PROPOSED REDEVELOPMENT WITHIN AN EXISTING CONSERVATION EASEMENT. REDEVELOPMENT DOES NOT INCLUDE THE PROPOSED AN INCREASE IN IMPERVIOUS AREA WITHIN THE BSA. ADDITIONALLY, THERE IS AN INCREASE IN IMPERVIOUS AREA WITHIN THE BSA. ADDITIONALLY, THERE IS AN INCREASE IN IMPERVIOUS AREA WITHIN THE BSA.

CHAPTER 124.4-2021 FOR REDEVELOPMENT REQUIRES THAT LAND DISTURBANCE RESULTING IN A NET INCREASE IN IMPERVIOUS COVER OVER PRE-DEVELOPMENT CONSTRUCTION SHALL BE LIMITED TO 10% OF THE TOTAL IMPERVIOUS COVER. THE REMAINING AREAS BE TREATED TO REDUCE THE PHOSPHORUS LOAD BY 20% BELOW THE PHOSPHORUS REMOVAL CALCULATIONS IN THE PREVIOUS SECTION. HOWEVER, SECTION 124.4-2021 STATES THAT THE REDEVELOPMENT LOADING FOR NEW DEVELOPMENT, BASED UPON THE NEW DEVELOPMENT RUNOFF PRODUCTION CALCULATION, THE PHOSPHORUS LOADING WOULD BE ABOUT 71 LB/DAY/AC. IN ORDER TO MEET THE PHOSPHORUS REMOVAL REQUIREMENTS, THE PHOSPHORUS REMOVAL WOULD BE DESIGNED AND CONSTRUCTED AS EXTENDED DETENTION PONDS. THE PHOSPHORUS REMOVAL WOULD BE DESIGNED AND CONSTRUCTED AS EXTENDED DETENTION PONDS. THE PHOSPHORUS REMOVAL WOULD BE DESIGNED AND CONSTRUCTED AS EXTENDED DETENTION PONDS. THE PHOSPHORUS REMOVAL WOULD BE DESIGNED AND CONSTRUCTED AS EXTENDED DETENTION PONDS.

Virginia Runoff Reduction Method New Development Worksheet - v2.8 - June 2014  
 To be used with DRAFT 2013 BMP Standards and Specifications  
 Project Name: Lorton Green Energy Park and Debris Landfill  
 Date: JUN 10, 2014

1. Post-Development Project & Land Cover Information

Category	Area (Ac)	Runoff Coefficient	Runoff Volume (100 Year)
Impervious	1.00	0.90	1.00
Grass	1.00	0.25	0.25
Soil	1.00	0.10	0.10
Water	1.00	0.00	0.00
<b>Total</b>	<b>4.00</b>	<b>0.29</b>	<b>1.35</b>

2. Land Cover Summary

Category	Area (Ac)	Runoff Coefficient	Runoff Volume (100 Year)
Impervious	1.00	0.90	1.00
Grass	1.00	0.25	0.25
Soil	1.00	0.10	0.10
Water	1.00	0.00	0.00
<b>Total</b>	<b>4.00</b>	<b>0.29</b>	<b>1.35</b>

3. Phosphorus Removal Requirements

Category	Area (Ac)	Runoff Coefficient	Runoff Volume (100 Year)	Phosphorus Load (100 Year)
Impervious	1.00	0.90	1.00	1.00
Grass	1.00	0.25	0.25	0.25
Soil	1.00	0.10	0.10	0.10
Water	1.00	0.00	0.00	0.00
<b>Total</b>	<b>4.00</b>	<b>0.29</b>	<b>1.35</b>	<b>1.35</b>

NOTE: CALCULATIONS ARE SUBJECT TO CHANGE BASED UPON FINAL ENGINEERING

4. Phosphorus Removal Requirements

Category	Area (Ac)	Runoff Coefficient	Runoff Volume (100 Year)	Phosphorus Load (100 Year)
Impervious	1.00	0.90	1.00	1.00
Grass	1.00	0.25	0.25	0.25
Soil	1.00	0.10	0.10	0.10
Water	1.00	0.00	0.00	0.00
<b>Total</b>	<b>4.00</b>	<b>0.29</b>	<b>1.35</b>	<b>1.35</b>

Virginia Runoff Reduction Method ReDevelopment Worksheet - v2.4 - June 2014  
 To be used with DRAFT 2013 BMP Standards and Specifications  
 Project Name: Lorton Green Energy Park and Debris Landfill  
 Date: JUN 10, 2014

1. Post-Development Project & Land Cover Information

Category	Area (Ac)	Runoff Coefficient	Runoff Volume (100 Year)
Impervious	1.00	0.90	1.00
Grass	1.00	0.25	0.25
Soil	1.00	0.10	0.10
Water	1.00	0.00	0.00
<b>Total</b>	<b>4.00</b>	<b>0.29</b>	<b>1.35</b>

2. Land Cover Summary

Category	Area (Ac)	Runoff Coefficient	Runoff Volume (100 Year)
Impervious	1.00	0.90	1.00
Grass	1.00	0.25	0.25
Soil	1.00	0.10	0.10
Water	1.00	0.00	0.00
<b>Total</b>	<b>4.00</b>	<b>0.29</b>	<b>1.35</b>

3. Phosphorus Removal Requirements

Category	Area (Ac)	Runoff Coefficient	Runoff Volume (100 Year)	Phosphorus Load (100 Year)
Impervious	1.00	0.90	1.00	1.00
Grass	1.00	0.25	0.25	0.25
Soil	1.00	0.10	0.10	0.10
Water	1.00	0.00	0.00	0.00
<b>Total</b>	<b>4.00</b>	<b>0.29</b>	<b>1.35</b>	<b>1.35</b>

NOTE: CALCULATIONS ARE SUBJECT TO CHANGE BASED UPON FINAL ENGINEERING

4. Phosphorus Removal Requirements

Category	Area (Ac)	Runoff Coefficient	Runoff Volume (100 Year)	Phosphorus Load (100 Year)
Impervious	1.00	0.90	1.00	1.00
Grass	1.00	0.25	0.25	0.25
Soil	1.00	0.10	0.10	0.10
Water	1.00	0.00	0.00	0.00
<b>Total</b>	<b>4.00</b>	<b>0.29</b>	<b>1.35</b>	<b>1.35</b>

5. Phosphorus Removal Requirements

Category	Area (Ac)	Runoff Coefficient	Runoff Volume (100 Year)	Phosphorus Load (100 Year)
Impervious	1.00	0.90	1.00	1.00
Grass	1.00	0.25	0.25	0.25
Soil	1.00	0.10	0.10	0.10
Water	1.00	0.00	0.00	0.00
<b>Total</b>	<b>4.00</b>	<b>0.29</b>	<b>1.35</b>	<b>1.35</b>

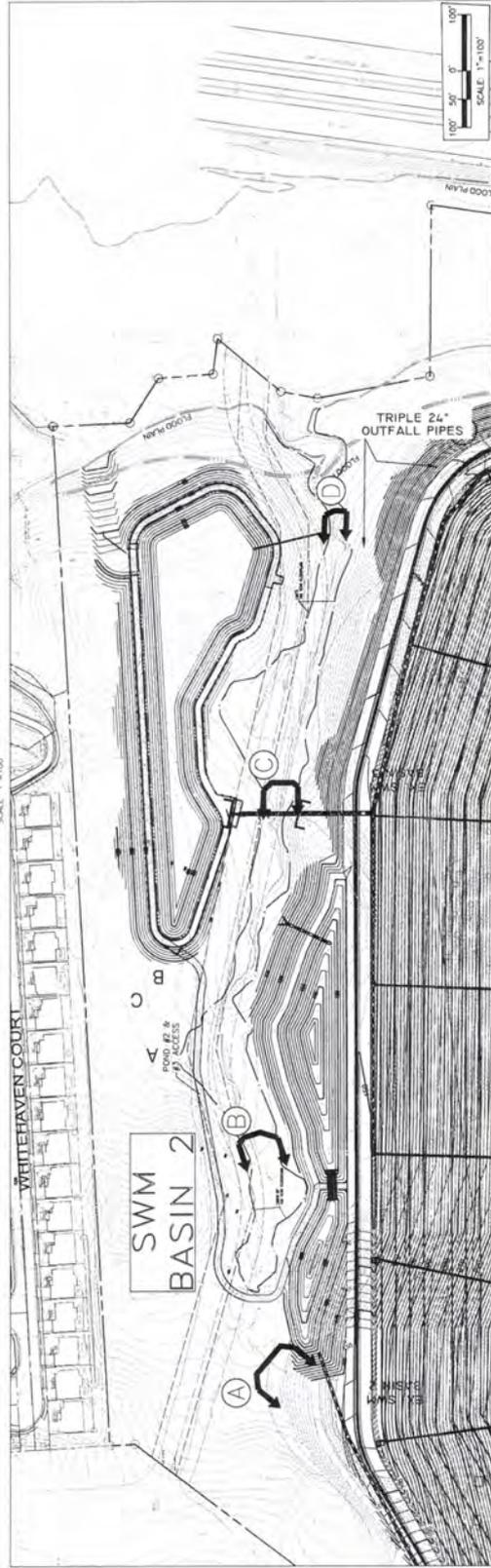






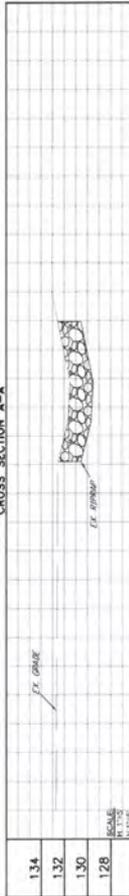


OUTFALL 2 CROSS SECTION PLAN VIEW

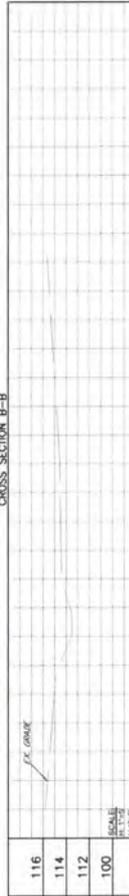


CROSS SECTION	FLOOD FLOW	CHANNEL TYPE	MANNING'S 'N'	3 YEAR FLOW		15 YEAR FLOW		15 YEAR DEPTH	
				FEET	CPD	FEET	CPD	FEET	CPD
134	2	WELDED	0.58	N/A	N/A	N/A	N/A	N/A	N/A
132	2	WELDED	0.58	N/A	N/A	N/A	N/A	N/A	N/A
130	2	WELDED	0.58	N/A	N/A	N/A	N/A	N/A	N/A
128	2.1	WELDED	0.58	1.52	7.15	25.7%	25.7%	0.90	0.90

OUTFALL 2  
CROSS SECTION A-A



CROSS SECTION B-B



CROSS SECTION C-C



NOTE:  
ALL STORMWATER MANAGEMENT AND  
BEST MANAGEMENT PRACTICES  
CALCULATIONS ARE APPLICABLE  
THROUGH PHASE 6.

NOTE:  
1. SEE SHEET 26 FOR CROSS SECTION LOCATIONS AND  
OUTFALL NUMBER

**BC Consultants**  
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12000 Fair Lakes Circle, Suite 100, Fairfax, VA 22033  
(703)449-8100 (703)449-8108 (Fax)  
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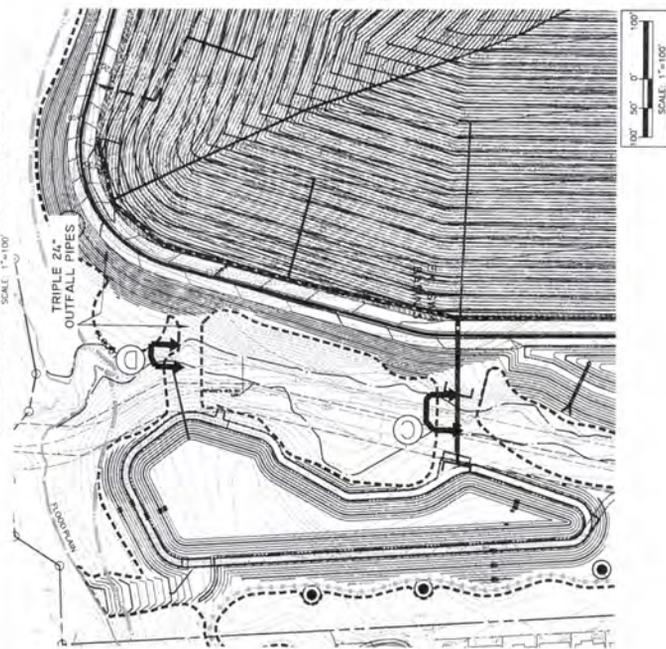


SPECIAL EXCEPTION AMENDMENT  
OUTFALL CROSS SECTIONS POND 2  
LORTON GREEN ENERGY PARK & DEBRIS LANDFILL  
MOUNT VERMONT DISTRICT  
FAIRFAX COUNTY, VIRGINIA

NO.	REVISIONS	DATE	BY	CHKD BY
01	ISSUED	03-22-2014	DAVID	DAVID
02	REVISED	03-25-2014	DAVID	DAVID
03	REVISED	03-25-2014	DAVID	DAVID
04	REVISED	03-25-2014	DAVID	DAVID
05	REVISED	03-25-2014	DAVID	DAVID
06	REVISED	03-25-2014	DAVID	DAVID
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94	REVISED	03-25-2014	DAVID	DAVID
95	REVISED	03-25-2014	DAVID	DAVID
96	REVISED	03-25-2014	DAVID	DAVID
97	REVISED	03-25-2014	DAVID	DAVID
98	REVISED	03-25-2014	DAVID	DAVID
99	REVISED	03-25-2014	DAVID	DAVID
100	REVISED	03-25-2014	DAVID	DAVID



OUTFALL 4.5.8.6 OVERALL CROSS SECTION PLAN VIEW



NOTE:  
ALL STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES CALCULATIONS ARE APPLICABLE THROUGH PHASE 6.



CROSS SECTION	POND OUTFALL	CHANNEL CHARACTERIZATION	MANNING'S N	3-YEAR FLOW VELOCITY	2-YEAR FLOW VELOCITY	15-YEAR FLOW VELOCITY
74	0.0	0.0	0.00	0.0	0.0	0.0
72	0.0	0.0	0.00	0.0	0.0	0.0
70	0.0	0.0	0.00	0.0	0.0	0.0
68	0.0	0.0	0.00	0.0	0.0	0.0

OUTFALL 3



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(703)449-8100 (703)449-8108 (fax)  
www.bcccon.com



SPECIAL EXCEPTION AMENDMENT  
OUTFALL CROSS SECTIONS POND 3  
LORTON GREEN ENERGY PARK & DEBRIS LANDFILL  
FAIRFAX COUNTY, VIRGINIA

DESIGNED BY: PUP  
DRAWN BY: CAD  
CHECKED BY: NR  
DATE: MARCH 22, 2013  
SCALE: AS SHOWN  
SHEET: 33 OF 47  
JOB NO. 06A-06-17-001-2  
CAD NAME: SCS1759A04  
LAYOUT: OUT\_3  
FILE NO.: 06A17-06-00

SCALE  
SEE SHEET 40 FOR CROSS SECTION LOCATIONS AND DETAILED INFORMATION





**OUTFALL 4, 5, & 6 OVERALL CROSS SECTION PLAN VIEW**  
 SCALE: 1"=50'



**NOTE:**  
 ALL STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES CALCULATIONS ARE APPLICABLE THROUGH PHASE 6.

**OUTFALL 6 CROSS-SECTION PLAN VIEW**  
 SCALE: 1"=50'



**OUTFALL 6**

**CROSS SECTION G-G**



**CROSS SECTION H-H**



**CROSS SECTION I-I**



**SCALE:**  
 1"=50' OVER AS FOR CROSS SECTION LOCATIONS AND OUTFALL MARKING

**OUTFALL 5 CROSS SECTION PLAN VIEW**  
 SCALE: 1"=50'

**NOTE:**  
 ALL STORMWATER MANAGEMENT AND BEST MANAGEMENT PRACTICES CALCULATIONS ARE APPLICABLE THROUGH PHASE 6.

**OUTFALL 5 CROSS-SECTION PLAN VIEW**  
 SCALE: 1"=50'



**OUTFALL 5**

**CROSS SECTION E-E**



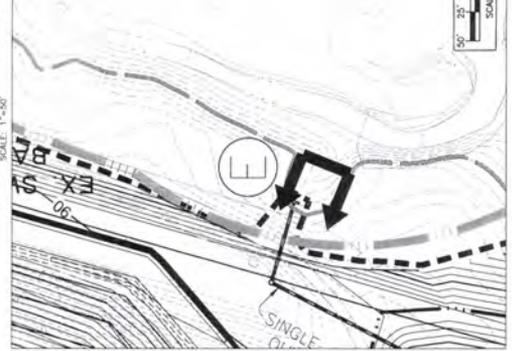
**OUTFALL 5**

**CROSS SECTION F-F**



CROSS-SECTION ID	POND OUTFALL	CHANNEL DESCRIPTION	MANNING'S N	3-YEAR FLOW (CFS)	5-YEAR FLOW (CFS)	10-YEAR FLOW (CFS)	15-YEAR DEPTH (FT)
E-E	1	WEEDY	0.845	1.32	2.77	33.34	0.84
F-F	2	WEEDY	0.845	1.32	2.77	33.34	0.84
G-G	3	WEEDY	0.845	1.32	2.77	33.34	0.84
H-H	4	WEEDY	0.845	1.32	2.77	33.34	0.84
I-I	5	WEEDY	0.845	1.32	2.77	33.34	0.84

**OUTFALL 4 CROSS SECTION PLAN VIEW**  
 SCALE: 1"=50'



**OUTFALL 4**

**CROSS SECTION E-E**



**OUTFALL 4**

**CROSS SECTION F-F**





BC REVISIONS  
 REVISION 1-22-2014  
 REVISION 2-20-2014  
 REVISION 3-14-2013  
 REVISION 4-11-2013  
 REVISION 5-15-2013  
 REVISION 6-15-2014  
 REVISION 7-11-2014  
 REVISION 8-15-2014  
 REVISION 9-15-2014  
 REVISION 10-15-2014  
 REVISION 11-15-2014  
 REVISION 12-15-2014  
 REVISION 13-15-2014  
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 REVISION 34-15-2014  
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 REVISION 40-15-2014

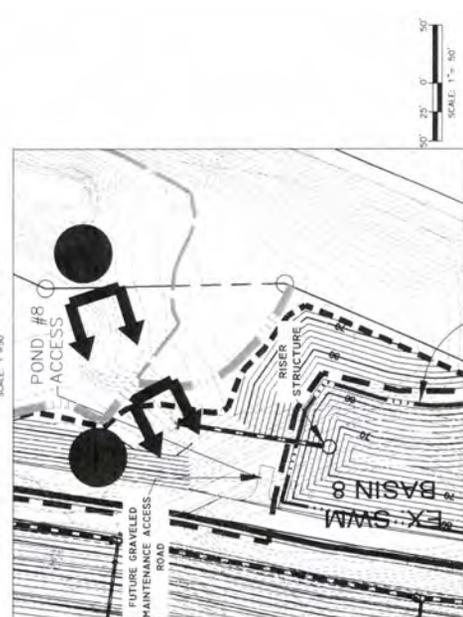
SPECIAL EXCEPTION AMENDMENT  
 OUTFALL CROSS SECTIONS POND 8  
 LORTON GREEN ENERGY PARK & DEBRIS LANDFILL  
 MOUNT VERNON DISTRICT  
 FAIRFAX COUNTY, VIRGINIA



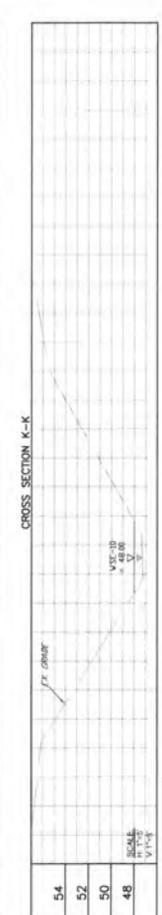
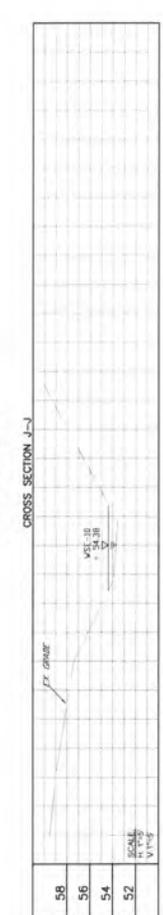
**BC Consultants**  
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 12800 Pitt Lake Circle, Suite 100, Fairfax, VA 22033  
 (703)449-8100 (703)449-8108 (Fax)  
 www.bccoem.com

SECTION ID	CHANNEL DESCRIPTION	MANNING'S N	3 YEAR FLOW (CFS)	5 YEAR FLOW (CFS)	10 YEAR FLOW (CFS)	15 YEAR FLOW (CFS)	VELOCITY (FPS)	WETTED PERCENT
4.4	9	0.015	178	237	317	417	1.78	91.7

OUTFALL #8 CROSS SECTION PLAN VIEW  
 SCALE: 1" = 30'



OUTFALL 8



NOTES  
 1. SEE SHEET 40 FOR CROSS SECTION LOCATIONS AND OUTFALL NARRATIVE.















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 www.bccon.com



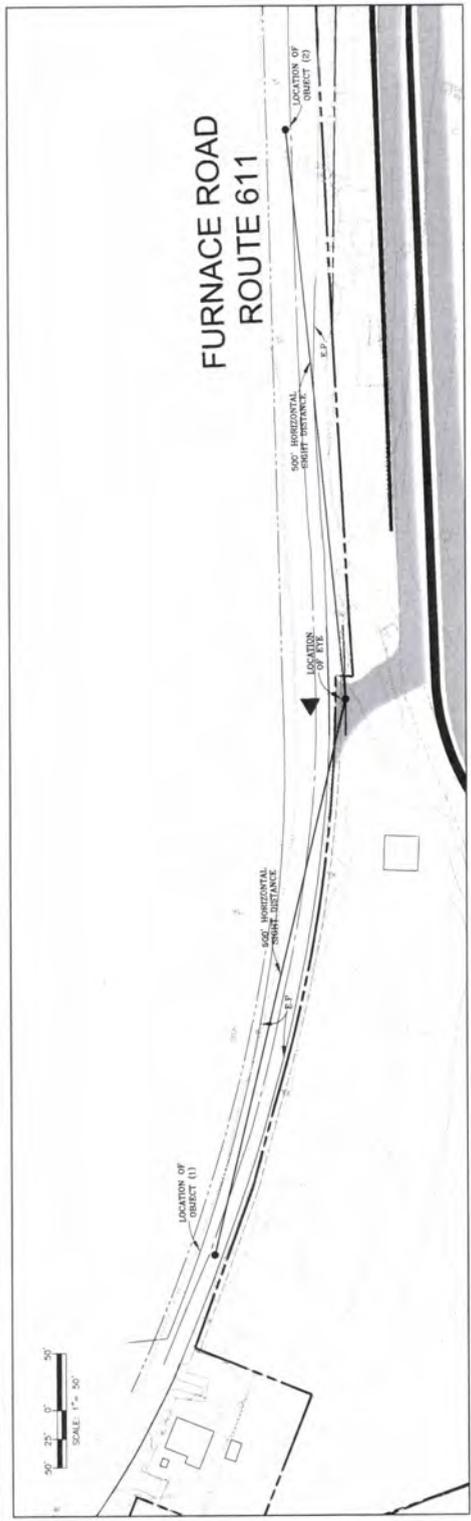
**LORTON GREEN ENERGY PARK & DEBRIS LANDFILL**  
 PHASE FIVE LANDFILL OPERATIONS TRUCK TRAFFIC CIRCULATION  
 SPECIAL EXCEPTION AMENDMENT

DESIGNED BY: ELK  
 CHECKED BY: NS  
 DATE: MARCH 22, 2013  
 SCALE: 1"=50'  
 SHEET: 45 OF 47  
 CAD NAME: B33110R-PHS  
 LAYOUT: PHS  
 FILE NO.: 011710R-01

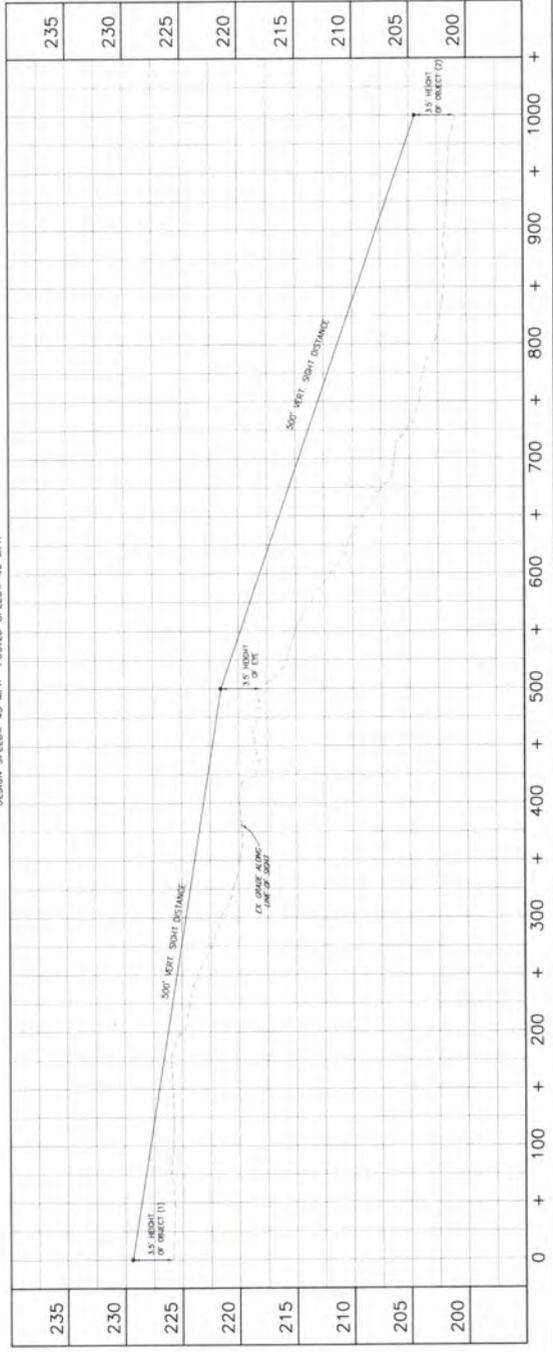


- LEGEND:**
- APPROXIMATE LIMITS OF CLEARING AND GRADING
  - - - APPROXIMATE LOCATION OF EXISTING VEGETATED LANDFILL BEEM
  - LANDFILL OPERATIONS TRUCK CIRCULATION (ONE WAY)
  - GRAVEL ACCESS RAMP (ONE WAY - 105' MAXIMUM WIDTH)
  - ▨ PROPOSED PHASE FIVE LANDFILL OPERATIONS
  - ▨ PHASE ONE LANDFILL OPERATIONS
  - ▨ PHASE TWO LANDFILL OPERATIONS
  - ▨ PHASE THREE LANDFILL OPERATIONS
  - ▨ PHASE FOUR LANDFILL OPERATIONS

**NOTE:**  
 1. THE APPROXIMATE LOCATIONS OF INTERNAL LANDFILL OPERATIONS ROADS AND LANDFILL SCALE HOUSES, SCALES, TRUCK WASHES, TRAILERS, ETC. ARE SHOWN ON THE PLAN. THE APPLICANT RESERVES THE RIGHT TO MOVE THESE ROADS, LANDFILL SCALE HOUSES, SCALES, TRUCK WASHES, TRAILERS, ETC. WITHIN THE LIMITS OF THE VEGETATED BEEM OPERATIONS GENERAL NOTE 'B' ON SHEET 33.  
 2. VEHICULAR ACCESS AT THE SOUTHERN ENTRANCE IS RIGHT TURN ONLY (NO LEFT) AND IS LIMITED TO TRUCKS ONLY.  
 3. AT THE NORTHERN ENTRANCE TRUCKS ARE LIMITED TO RIGHT TURN IN AND LEFT TURN OUT ONLY.  
 4. AT NORTHERN ENTRANCE VEHICLES MAY ENTER AND EXIT.



**EX. FURNACE ROAD - ROUTE 611**  
 DESIGN SPEED= 45 MPH, POSTED SPEED= 40 MPH



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 (703)449-8100 (703)449-8106 (FAX)  
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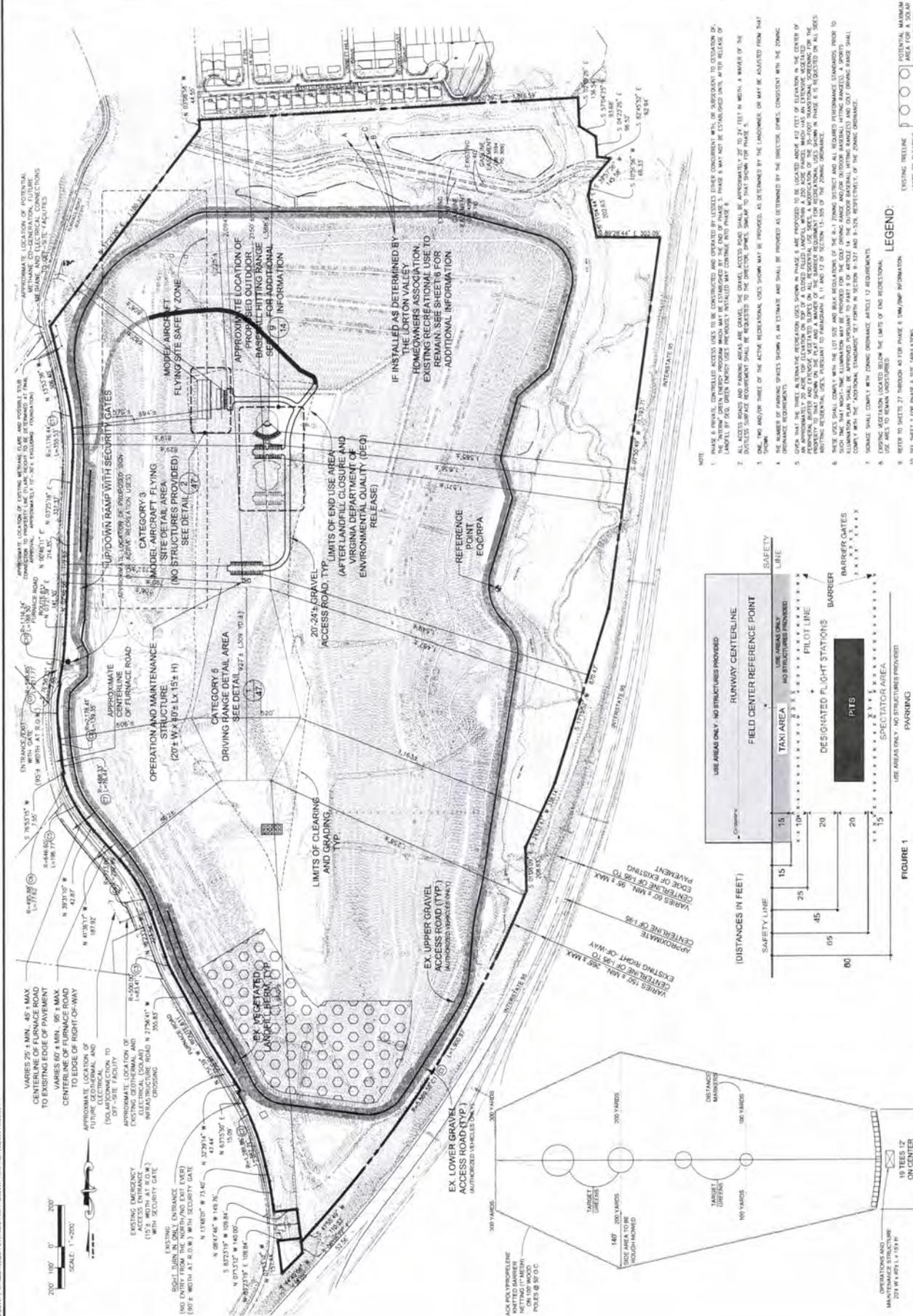
**LORTON GREEN ENERGY PARK & DEBRIS LANDFILL**  
 SPECIAL EXCEPTION AMENDMENT  
 SIGHT DISTANCE  
 MOUNT VERNON DISTRICT  
 FAIRFAX COUNTY, VIRGINIA

REV	DATE	BY	CHKD	DESCRIPTION
REV 2-20-11	2-20-11			REVISED 2-20-11
REV 4-4-11	4-4-11			REVISED 4-4-11
REV 8-13-11	8-13-11			REVISED 8-13-11
REV 1-11-11	1-11-11			REVISED 1-11-11
REV 2-18-11	2-18-11			REVISED 2-18-11
REV 7-23-11	7-23-11			REVISED 7-23-11

DESIGNED BY: JGD  
 CHECKED BY: JGD  
 DATE: MARCH 22, 2013  
 SCALE: HORIZ. 1"=200'  
 VERT. 1"=40'  
 SHEET 46 OF 47  
 CO. NO. SEA 86-1-7-261-2  
 CAD NAME: 0517-AUTODR  
 LAYOUT: SIGHT  
 FILE NO.: 051726-00

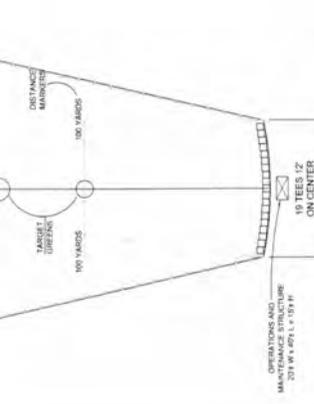
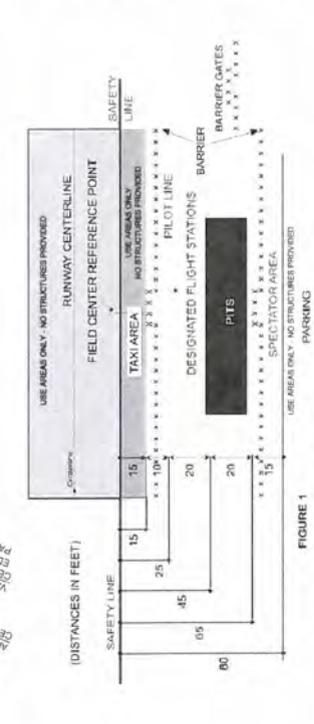


DATE: 11-11-14	REVISIONS:
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REV. 96	11-11-14
REV. 97	11-11-14
REV. 98	11-11-14
REV. 99	11-11-14
REV. 100	11-11-14



**NOTE**

1. THIS IS A SPECIAL EXCEPTION AMENDMENT TO THE ZONING ORDINANCE. THE PROPOSED END USES ARE CONSIDERED TO BE COMPATIBLE WITH THE ZONING ORDINANCE. THE LIMITS OF CLEARING AND GRADING SHALL BE ESTABLISHED BY THE END OF PHASE 5. PHASE 5 MAY NOT BE DEVELOPED UNTIL THE RELEASE OF THE LANTON GREEN ENERGY PROGRAM WHICH MAY BE ESTABLISHED BY THE END OF PHASE 5. PHASE 5 MAY NOT BE DEVELOPED UNTIL THE RELEASE OF THE LANTON GREEN ENERGY PROGRAM WHICH MAY BE ESTABLISHED BY THE END OF PHASE 5.
2. ALL ACCESS ROADS AND PARKING AREAS ARE GRADING. THE GRADING ACCESS SHALL BE APPROXIMATELY 20' TO 24' FEET IN WIDTH, A MINIMUM OF THE DESIGNATED SURFACE REQUIREMENT SHALL BE MAINTAINED TO THE STRUCTURE, PAVEMENT, GRADING, AND/OR OTHER USES.
3. THE NUMBER AND TYPE OF THE ACTIVE RECREATIONAL USES SHALL BE PROVIDED AS DETERMINED BY THE DIRECTOR. THE NUMBER OF ACTIVE RECREATIONAL USES SHALL BE PROVIDED AS DETERMINED BY THE DIRECTOR. THE NUMBER OF ACTIVE RECREATIONAL USES SHALL BE PROVIDED AS DETERMINED BY THE DIRECTOR.
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6. THESE USES SHALL COMPLY WITH THE LOT SIZE AND BULK REGULATIONS OF THE ZONING DISTRICT AND ALL REQUIRED PERFORMANCE STANDARDS. THESE USES SHALL COMPLY WITH THE LOT SIZE AND BULK REGULATIONS OF THE ZONING DISTRICT AND ALL REQUIRED PERFORMANCE STANDARDS. THESE USES SHALL COMPLY WITH THE LOT SIZE AND BULK REGULATIONS OF THE ZONING DISTRICT AND ALL REQUIRED PERFORMANCE STANDARDS.
7. THE NUMBER OF ACTIVE RECREATIONAL USES SHALL BE PROVIDED AS DETERMINED BY THE DIRECTOR. THE NUMBER OF ACTIVE RECREATIONAL USES SHALL BE PROVIDED AS DETERMINED BY THE DIRECTOR.
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20. THE NUMBER OF ACTIVE RECREATIONAL USES SHALL BE PROVIDED AS DETERMINED BY THE DIRECTOR. THE NUMBER OF ACTIVE RECREATIONAL USES SHALL BE PROVIDED AS DETERMINED BY THE DIRECTOR.



**LEGEND:**

- EXISTING RETEILING
- LIMITS OF CLEARING AND GRADING
- SEE SHEET 2 FOR PHASE 5
- SEE SHEET 3 FOR PHASE 6
- SEE SHEET 4 FOR PHASE 7
- SEE SHEET 5 FOR PHASE 8
- SEE SHEET 6 FOR PHASE 9
- SEE SHEET 7 FOR PHASE 10
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- SEE SHEET 93 FOR PHASE 96
- SEE SHEET 94 FOR PHASE 97
- SEE SHEET 95 FOR PHASE 98
- SEE SHEET 96 FOR PHASE 99
- SEE SHEET 97 FOR PHASE 100

**SPECIAL EXCEPTION AFFIDAVIT**

DATE: April 30, 2014  
 (enter date affidavit is notarized)

I, Charles B. Fromm, do hereby state that I am an  
 (enter name of applicant or authorized agent)

121265c

(check one)             applicant  
                               applicant's authorized agent listed in Par. 1(a) below

in Application No.(s): SEA 80-L/V-061-2  
 (enter County-assigned application number(s), e.g. SE 88-V-001)

and that, to the best of my knowledge and belief, the following information is true:

1(a). The following constitutes a listing of the names and addresses of all **APPLICANTS, TITLE OWNERS, CONTRACT PURCHASERS, and LESSEES** of the land described in the application,\* and, if any of the foregoing is a **TRUSTEE,\*\*** each **BENEFICIARY** of such trust, and all **ATTORNEYS** and **REAL ESTATE BROKERS**, and all **AGENTS** who have acted on behalf of any of the foregoing with respect to the application:

**(NOTE:** All relationships to the application listed above in **BOLD** print are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel(s) for each owner(s) in the Relationship column.)

<b>NAME</b> (enter first name, middle initial, and last name)	<b>ADDRESS</b> (enter number, street, city, state, and zip code)	<b>RELATIONSHIP(S)</b> (enter applicable relationships listed in <b>BOLD</b> above)
Furnace Associates, Inc.(1) Agents: Charles B. Fromm Conrad R. Mehan Gary R. Hewes Edward Paul Farrell, Jr. Clayton L. Walton Eric K. Wallace Marc L. Bourhis Larry W. Bayne David R. Howard, Jr.	11220 Assett Loop, Suite 201 Manassas, VA 20109	Applicant/Title Owner of Parcels 113-1-((1))-5, 7, 8 and 113-3-((1))-1, 2, 4
Hunton & Williams LLP(10)	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Attorneys/Agents for Applicant
Francis A. McDermott John C. McGranahan, Jr. Nicholas H. Grainger	1751 Pinnacle Drive, Suite 1700 McLean, VA 22012	Attorneys/Agents for Applicant

(check if applicable)             There are more relationships to be listed and Par. 1(a) is continued on a "Special Exception Attachment to Par. 1(a)" form.

\* In the case of a condominium, the title owner, contract purchaser, or lessee of 10% or more of the units in the condominium.  
 \*\* List as follows: Name of trustee, Trustee for (name of trust, if applicable), for the benefit of: (state name of each beneficiary).

**Special Exception Attachment to Par. 1(a)**

DATE: April 30, 2014  
 (enter date affidavit is notarized)

*121265c*

for Application No. (s): SEA 80-L/V-061-2  
 (enter County-assigned application number (s))

**(NOTE:** All relationships to the application are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel (s) for each owner(s) in the Relationship column.)

<b>NAME</b> (enter first name, middle initial, and last name)	<b>ADDRESS</b> (enter number, street, city, state, and zip code)	<b>RELATIONSHIP(S)</b> (enter applicable relationships listed in <b>BOLD</b> above)
Elaine O'Flaherty Cox Susan K. Yantis	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Planners/Agents for Applicant
Jeannie A. Mathews	1751 Pinnacle Drive, Suite 1700 McLean, VA 22102	Paralegal/Agent for Applicant
The BC Consultants, Inc.(11) Agents: James H. Scanlon Matthew S. Lawrence Dennis D. Dixon ● Marissa Y. Masangkay	12600 Fair Lakes Circle, Suite 100 Fairfax, VA 22033	Engineers/Agents for Applicant
Geosyntec Consultants, Inc.(12) Agents: Scott K. Sheridan Kyle E. LaClair Thomas B. Ramsey Jeremy W. F. Morris ● Thomas S. Bristol	9211 Arboretum Parkway, Suite 200 Richmond, VA 23832	Environmental Engineers/Agents for Applicant
Lecos & Associates, LLC(13) Agent: William D. Lecos	6324 Beachway Drive Falls Church, VA 22044	Consultant/Agent for Applicant
M. J. Wells & Associates, Inc.(14) Agents: William F. Johnson Robin L. Antonucci Kevin R. Fellin Brian J. Horan	1420 Spring Hill Road, Suite 600 McLean, VA 22102	Traffic Consultants/Agents for Applicant
Wetland Studies and Solutions, Inc.(15) Agents: Michael S. Rolband Kimberly A. Snyder ● Mark W. Headly Benjamin N. Rosner	5300 Wellington Branch Drive, Suite 100 Gainesville, VA 20155	Cultural and Natural Resource Consultants/Agents for Applicant
● Digital Design & Imaging Service, Inc.(17) Agents: Curt J. Westergard Ryan N. Shuler	* 100 West Jefferson, Suite 200 Falls Church, VA 22046	* Balloon Test Consultant/Agent for Applicant

(check if applicable)  There are more relationships to be listed and Par. 1(a) is continued further on a "Special Exception Attachment to Par. 1(a)" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: April 30, 2014
(enter date affidavit is notarized)

121265c

for Application No. (s): SEA 80-L/V-061-2
(enter County-assigned application number(s))

1(b). The following constitutes a listing\*\*\* of the SHAREHOLDERS of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 10 or less shareholders, a listing of all of the shareholders:

(NOTE: Include SOLE PROPRIETORSHIPS, LIMITED LIABILITY COMPANIES, and REAL ESTATE INVESTMENT TRUSTS herein.)

CORPORATION INFORMATION

NAME & ADDRESS OF CORPORATION: (enter complete name and number, street, city, state, and zip code) (1)Furnace Associates, Inc.
11220 Assett Loop, Suite 201
Manassas, VA 20109

DESCRIPTION OF CORPORATION: (check one statement)

- [x] There are 10 or less shareholders, and all of the shareholders are listed below.
[ ] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[ ] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF SHAREHOLDERS: (enter first name, middle initial and last name)

EnviroSolutions Real Property Holdings, Inc.(2)

(check if applicable) [x] There is more corporation information and Par. 1(b) is continued on a "Special Exception Affidavit Attachment 1(b)" form.

\*\*\* All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed. Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

**Special Exception Attachment to Par. 1(b)**

DATE: April 30, 2014  
(enter date affidavit is notarized)

121265

for Application No. (s): SEA 80-L/V-061-2  
(enter County-assigned application number (s))

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

(2)EnviroSolutions Real Property Holdings, Inc.  
11220 Assett Loop, Suite 201  
Manassas, VA 20109

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

EnviroSolutions Holdings, Inc.(3)

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

(3)EnviroSolutions Holdings, Inc.  
11220 Assett Loop, Suite 201  
Manassas, VA 20109

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

ASOF II Investments, LLC(4)  
NZC Guggenheim Master Fund Limited(6)  
PennantPark Investment Corporation(9)

(check if applicable)  There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

**Special Exception Attachment to Par. 1(b)**

DATE: April 30, 2014  
(enter date affidavit is notarized)

121265 c

for Application No. (s): SEA 80-L/V-061-2  
(enter County-assigned application number (s))

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

(4)ASOF II Investments, LLC  
299 Park Avenue, 34th Floor  
New York, NY 10171

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

American Securities Opportunities Fund II (Does not own 10% of Furnace Associates,  
(B), L.P. Inc.)  
American Securities Opportunities Fund II,  
L.P.(5)

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

(6)NZC Guggenheim Master Fund Limited (a Cayman Islands exempted company)  
c/o Guggenheim Investment Management, LLC  
• 330 Madison Avenue  
New York, NY 10017

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

NZC Guggenheim Fund LLC(7)  
NZC Guggenheim Fund Ltd.(8)

(check if applicable)  There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

• Added since the printing of the 2/13/14 Staff Report.

**Special Exception Attachment to Par. 1(b)**

DATE: April 30, 2014  
(enter date affidavit is notarized)

121265c

for Application No. (s): SEA 80-L/V-061-2  
(enter County-assigned application number (s))

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

(7)NZC Guggenheim Fund LLC  
c/o Guggenheim Investment Management, LLC  
• 330 Madison Avenue  
New York, NY 10017.

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

(8)NZC Guggenheim Fund Ltd.  
c/o Guggenheim Investment Management, LLC  
• 330 Madison Avenue  
New York, NY 10017.

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

(check if applicable)  There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

• Added since the printing of the 2/13/14 Staff Report.

**Special Exception Attachment to Par. 1(b)**

DATE: April 30, 2014  
(enter date affidavit is notarized)

121265C

for Application No. (s): SEA 80-L/V-061-2  
(enter County-assigned application number (s))

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

(9)PennantPark Investment Corporation  
590 Madison Avenue, 15th Floor  
New York, NY 10022

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

Publicly Traded

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

(11)The BC Consultants, Inc.  
12600 Fair Lakes Circle, Suite 100  
Fairfax, VA 22033

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

James H. Scanlon (sole shareholder)

(check if applicable)  There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

**Special Exception Attachment to Par. 1(b)**

DATE: April 30, 2014  
(enter date affidavit is notarized)

121265C

for Application No. (s): SEA 80-L/V-061-2  
(enter County-assigned application number (s))

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

(12)Geosyntec Consultants, Inc.  
9211 Arboretum Parkway, Suite 200  
Richmond, VA 23832

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

(13)Lecos & Associates, LLC  
6324 Beachway Drive  
Falls Church, VA 22044

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

William D. Lecos

(check if applicable)  There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

**Special Exception Attachment to Par. 1(b)**

DATE: April 30, 2014  
(enter date affidavit is notarized)

121265c

for Application No. (s): SEA 80-L/V-061-2  
(enter County-assigned application number (s))

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

(14)M. J. Wells & Associates, Inc.  
1420 Spring Hill Road, Suite 600  
McLean, VA 22102

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

M. J. Wells & Associates, Inc. Employee (All employees are eligible Plan  
Stock Ownership Trust (ESOT) participants; however, none owns 10% or  
more of any class of stock.)

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

(15)Wetland Studies and Solutions, Inc.  
5300 Wellington Branch Drive, Suite 100  
Gainesville, VA 20155

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

The Davey Tree Expert Company(16)

(check if applicable)  There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

**Special Exception Attachment to Par. 1(b)**

DATE: April 30, 2014  
(enter date affidavit is notarized)

121265c

for Application No. (s): SEA 80-L/V-061-2  
(enter County-assigned application number (s))

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

- (16) The Davey Tree Expert Company  
1500 N. Mantua Street  
Kent, OH 44240

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

- Reliance Trust Co. as trustee for the Davey 401k SOP and ESOP (All employees are eligible Plan participants; however, none owns 10% or more of any class of stock.)

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

- (17) Digital Design & Imaging Service, Inc.  
100 West Jefferson, Suite 200  
Falls Church, VA 22046

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

- Curt J. Westergard

(check if applicable)  There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

• Added since the printing of the 2/13/14 Staff Report.

SPECIAL EXCEPTION AFFIDAVIT

DATE: April 30, 2014
(enter date affidavit is notarized)

121265c

for Application No. (s): SEA 80-L/V-061-2
(enter County-assigned application number(s))

1(c). The following constitutes a listing\*\*\* of all of the PARTNERS, both GENERAL and LIMITED, in any partnership disclosed in this affidavit:

PARTNERSHIP INFORMATION

PARTNERSHIP NAME & ADDRESS: (enter complete name, and number, street, city, state, and zip code)
(5)American Securities Opportunities Fund II, L.P.
299 Park Avenue, 34th Floor
New York, NY 10171

(check if applicable) [ ] The above-listed partnership has no limited partners.

NAMES AND TITLE OF THE PARTNERS (enter first name, middle initial, last name, and title, e.g. General Partner, Limited Partner, or General and Limited Partner)

GENERAL PARTNER:

ASOF Associates II, LLC (Does not own 10% of Furnace Associates, Inc.)

LIMITED PARTNERS:

There are 83 limited partners/private equity investors, none of whom owns 10% or more of Furnace Associates, Inc.

(check if applicable) [X] There is more partnership information and Par. 1(c) is continued on a "Special Exception Affidavit Attachment to Par. 1(c)" form.

\*\*\* All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed. Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

**Special Exception Attachment to Par. 1(c)**DATE: April 30, 2014  
(enter date affidavit is notarized)

121265c

for Application No. (s): SEA 80-L/V-061-2  
(enter County-assigned application number (s))**PARTNERSHIP NAME & ADDRESS:** (enter complete name & number, street, city, state & zip code)(10)Hunton & Williams LLP  
1751 Pinnacle Drive, Suite 1700  
McLean, VA 22102(check if applicable)  The above-listed partnership has no limited partners.**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g., **General Partner, Limited Partner, or General and Limited Partner**)

Robert A. Acosta-Lewis  
Lawrence C. Adams  
● Syed S. Ahmad  
Michael F. Albers  
Kenneth J. Alcott  
Fernando C. Alonso  
Walter J. Andrews  
Charles E. G. Ashton  
Chinawat Assavapokee (nmi)  
L. Scott Austin  
Ian Phillip Band  
Sean M. Beard  
John J. Beardsworth, Jr.  
Ryan A. Becker  
Steven H. Becker  
Stephen John Bennett  
Melinda R. Beres  
Lucas Bergkamp (nmi)  
Lon A. Berk  
Mark B. Bierbower  
Stephen R. Blacklocks  
Jeffry M. Blair  
Matthew P. Boshier  
James W. Bowen  
Lawrence J. Bracken, II  
James P. Bradley  
Sheldon T. Bradshaw  
David F. Brandley, Jr.  
Benjamin P. Browder  
A. Todd Brown, Sr.  
Tyler P. Brown  
F. William Brownell  
Kevin J. Buckley  
Kristy A. Niehaus Bulleit  
Joseph B. Buonanno  
Nadia S. Burgard  
Eric R. Burner  
M. Brett Burns  
P. Scott Burton  
Ellis M. Butler  
Ferdinand A. Calice

Matthew J. Calvert  
Daniel M. Campbell  
Thomas H. Cantrill  
Curtis G. Carlson  
Jean Gordon Carter  
Charles D. Case  
● J. C. Chenault, V  
James N. Christman  
Whittington W. Clement  
Herve' Cogels (nmi)  
Cassandra C. Collins  
S. Gregory Cope  
Ashley Cummings (nmi)  
Alexandra B. Cunningham  
Samuel A. Danon  
John A. Decker  
John J. Delionado  
Stephen P. Demm  
Dee Ann Dorsey  
Edward L. Douma  
Colleen P. Doyle  
Alison M. Dreizen  
Sean P. Ducharme  
Deidre G. Duncan  
Roger Dyer (nmi)  
Frederick R. Eames  
Heather Archer Eastep  
Maya M. Eckstein  
W. Jeffery Edwards  
John C. Eichman  
Emmett N. Ellis  
Edward W. Elmore, Jr.  
Frank E. Emory, Jr.  
Juan C. Enjamio  
John D. Epps  
Phillip J. Eskenazi  
Joseph P. Esposito  
Kelly L. Faglioni  
Susan S. Failla  
Eric H. Feiler  
Kevin C. Felz

Edward F. Fernandes  
Jamillia Padua Ferris  
Norman W. Fichthorn  
Andrea Bear Field  
Kevin J. Finto  
Melanie Fitzgerald (nmi)  
Michael F. Fitzpatrick, Jr.  
Robert N. Flowers  
William M. Flynn  
David S. Freed  
Lauren E. Freeman  
Steven C. Friend  
Edward J. Fuhr  
Charles A. Gall  
Daniel C. Garner  
Douglas M. Garrou  
Richard D. Gary  
Kevin M. Georgerian  
John T. Gerhart, Jr.  
● Andrew G. Geyer  
Jeffrey W. Giese  
Neil K. Gilman  
C. Christopher Giragosian  
Douglas S. Granger  
Laurie A. Grasso  
J. William Gray, Jr.  
Charles E. Greef  
Christopher C. Green  
Robert J. Grey, Jr.  
Greta T. Griffith  
Brett L. Gross  
Bradley W. Grout  
Steven M. Haas  
Brian L. Hager  
Robert J. Hahn  
Jarrett L. Hale  
Leslie S. Hansen  
Eric J. Hanson  
Ronald M. Hanson  
Jason W. Harbour  
Jeffrey L. Harvey

(check if applicable)  There is more partnership information and Par. 1(c) is continued further on a "Special Exception Attachment to Par. 1(c)" form.

**Special Exception Attachment to Par. 1(c)**DATE: April 30, 2014  
(enter date affidavit is notarized)

121265c

for Application No. (s): SEA 80-L/V-061-2  
(enter County-assigned application number (s))**PARTNERSHIP NAME & ADDRESS:** (enter complete name & number, street, city, state & zip code)(10)Hunton & Williams LLP (continued)  
1751 Pinnacle Drive, Suite 1700  
McLean, VA 22102(check if applicable)  The above-listed partnership has no limited partners.**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g.,  
**General Partner, Limited Partner, or General and Limited Partner**)

John D. Hawkins	David Craig Landin	Thurston R. Moore
Rudene Mercer Haynes	Gregory F. Lang	Robert J. Morrow
Mark S. Hedberg	Andrew W. Lawrence	Ann Marie Mortimer
Gregory G. Hesse	Daniel M. LeBey	Michael J. Mueller
David A. Higbee	Bradley T. Lennie	Eric J. Murdock
Thomas Y. Hiner	L. Steven Leshin	Ted J. Murphy
D. Bruce Hoffman	Catherine D. Little	Thomas P. Murphy
Robert E. Hogfoss	David C. Lonergan	David A. Mustone
John R. Holzgraefe	Nash E. Long, III	James P. Naughton
Cecelia Philipps Horner	Kirk A. Lovric	Wim Nauwelaerts (nmi)
George C. Howell, III	David S. Lowman, Jr.	Eric J. Nedell
Paul C. Huck, Jr.	Kimberly C. MacLeod	Michael Nedzbala (nmi)
Kevin F. Hull	Michael J. Madden, Jr.	William L. Newton
Donald P. Irwin	Tyler Maddry (nmi)	Lonnie D. Nunley, III
Jamie Zysk Isani	Manuel E. Maisog	Michael A. Oakes
Judith H. Itkin	Rori H. Malech	Peter K. O'Brien
Makram B. Jaber	Douglas M. Mancino	John T. O'Connor
Timothy L. Jacobs	● Christopher Mangin, Jr. (nmi)	Leslie A. Okinaka
Lori Elliott Jarvis	Alan J. Marcuis	John D. O'Neill, Jr.
Matthew D. Jenkins	Brian R. Marek	Michael A. O'Shea
Harry M. Johnson, III	Fernando Margarit (nmi)	Brian V. Otero
● Karolyn E. ("Kerry") Johnson	Laura C. Marshall	Raj Pande (nmi)
James A. Jones, III	Jeffrey N. Martin	Randall S. Parks
Kevin W. Jones	John S. Martin	Peter S. Partee, Sr.
Laura Ellen Jones	J. Michael Martinez de Andino	J. Steven Patterson
Dan J. Jordanger	Walfrido J. Martinez	William S. Patterson
Roland Juarez (nmi)	Laurie Uustal Mathews	● Djordje Petkoski (nmi)
Thomas R. Julin	John Gary Maynard, III	Eric R. Pogue
Andrew Kamensky (nmi)	William H. McBride	Robert Dean Pope
Michael G. Keeley	Michael C. McCann	Laurence H. Posorske
G. Roth Kehoe, II	T. Allen McConnell	Kurtis A. Powell
David A. Kelly	Alexander G. McGeoch	Lewis F. Powell, III
Douglas W. Kenyon	John C. McGranahan, Jr.	Robert T. Quackenboss
Michael C. Kerrigan	Gustavo J. Membiela	Dionne C. Rainey
Ryan T. Ketchum	Uriel A. Mendieta	Katherine E. Ramsey
Scott H. Kimpel	Mark W. Menezes	John Jay Range
Robert A. King	Gary C. Messplay	Robert S. Rausch
Edward B. Koehler	Peter J. Mignone	Belynda B. Reck
John T. Konther	Patrick E. Mitchell	Baker R. Rector
Torsten M. Kracht	Jack A. Molenkamp	Shawn Patrick Regan
Christopher G. Kulp	T. Justin Moore, III	Sona Rewari (nmi)

(check if applicable)  There is more partnership information and Par. 1(c) is continued further on a "Special Exception Attachment to Par. 1(c)" form.

**Special Exception Attachment to Par. 1(c)**DATE: April 30, 2014  
(enter date affidavit is notarized)

121265c

for Application No. (s): SEA 80-L/V-061-2  
(enter County-assigned application number (s))**PARTNERSHIP NAME & ADDRESS:** (enter complete name & number, street, city, state & zip code)(10)Hunton & Williams LLP (continued)  
1751 Pinnacle Drive, Suite 1700  
McLean, VA 22102(check if applicable)  The above-listed partnership has no limited partners.**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g.,  
**General Partner, Limited Partner, or General and Limited Partner**)

Thomas A. Rice  
 Michael P. Richman  
 Jennings G. ("J. G.") Ritter, II  
 Kathy E. B. Robb  
 Daryl B. Robertson  
 Gregory B. Robertson  
 Patrick L. Robson  
 Robert M. Rolfe  
 Ronald D. Rosener  
 Trevor K. Ross  
 Brent A. Rosser  
 William L. S. Rowe  
 Ronald L. Rubin  
 Marguerite R. ("Rita") Ruby  
 D. Alan Rudlin  
 Mary Nash K. Rusher  
 D. Kyle Sampson  
 Stephen M. Sayers  
 Arthur E. Schmalz  
 Gregory J. Schmitt  
 John R. Schneider  
 Howard E. Schreiber  
 Jeffrey P. Schroeder  
 Carl F. Schwartz  
 P. Watson Seaman  
 James S. Seevers, Jr.  
 Douglass P. Selby  
 Joel R. Sharp  
 Michael R. Shebelskie  
 Rita A. Sheffey  
 Ryan A. Shores  
 George P. Sibley, III  
 Donald F. Simone  
 Aaron P. Simpson  
 Jo Anne E. Sirgado  
 Laurence E. Skinner  
 Caryl Greenberg Smith  
 John R. ("J. R.") Smith  
 Yisun Song (nmi)  
 Lisa J. Sotto  
 Joseph C. Stanko, Jr.

Todd M. Stenerson  
 John J. Stenger  
 Gregory N. Stillman  
 Fradyn Suarez (nmi)  
 Yeongyo Anna Suh  
 C. Randolph Sullivan  
 Jeffrey M. Sullivan  
 ● Brian J. Tanenbaum  
 Andrew J. Tapscott  
 Robert M. Tata  
 W. Lake Taylor, Jr.  
 Wendell L. Taylor  
 John Charles Thomas  
 Gary E. Thompson  
 Paul M. Tiao  
 B. Cary Tolley, III  
 Bridget C. Treacy  
 Andrew J. Turner  
 Julie I. Ungerman  
 Daniel E. Uyesato  
 Mark C. Van Deusen  
 Emily Burkhardt Vicente  
 Daniel G. Vivarelli, Jr.  
 Mark R. Vowell  
 Amanda L. Wait  
 Linda L. Walsh  
 William L. Wehrum  
 Peter G. Weinstock  
 Malcolm C. Weiss  
 Kevin J. White  
 Amy McDaniel Williams  
 Mitchell G. Williams  
 Holly H. Williamson  
 Michael G. Wilson  
 ● Susan F. Wiltsie  
 Allison D. Wood  
 David C. Wright  
 Richard L. Wyatt, Jr.  
 David R. Yates  
 Lee B. Zeugin  
 Manida Zimmerman (nmi)

## ● FORMER PARTNERS:

● Craig A. Bromby  
 Thomas J. Cawley  
 ● Stacy M. Colvin  
 Cameron N. Cosby  
 Cyane B. Crump  
 ● Barry R. Davidson  
 ● Laura M. Franze  
 Ray V. Hartwell, III  
 Andrew E. Jillson  
 ● W. Alan Kailer  
 Steven R. Loeshelle  
 Stephen S. Maris  
 ● Thelma Marshall (nmi)  
 Fraser A. McAlpine  
 ● Francis A. McDermott  
 Frank J. Murphy, Jr.  
 ● Henry V. Nickel  
 Pam Gates O'Quinn  
 Curtis D. Porterfield  
 ● J. Waverly Pulley, III  
 Stuart A. Raphael  
 ● Karen M. Sanzaro  
 Thomas G. Slater, Jr.  
 Brooks M. Smith  
 ● Rodger L. Tate  
 ● William A. Walsh, Jr.  
 Lynnette R. Warman  
 Evan D. Wolff

(check if applicable)  There is more partnership information and Par. 1(c) is continued further on a  
"Special Exception Attachment to Par. 1(c)" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: April 30, 2014
(enter date affidavit is notarized)

for Application No. (s): SEA 80-L/V-061-2
(enter County-assigned application number(s))

121265c

1(d). One of the following boxes must be checked:

[ ] In addition to the names listed in Paragraphs 1(a), 1(b), and 1(c) above, the following is a listing of any and all other individuals who own in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land:

[x] Other than the names listed in Paragraphs 1(a), 1(b), and 1(c) above, no individual owns in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land.

2. That no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or through an interest in a partnership owning such land.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "NONE" on the line below.)

NONE

(check if applicable) [ ] There are more interests to be listed and Par. 2 is continued on a "Special Exception Attachment to Par. 2" form.

**SPECIAL EXCEPTION AFFIDAVIT**

DATE: April 30, 2014  
(enter date affidavit is notarized)

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3. That within the twelve-month period prior to the public hearing of this application, no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household, either directly or by way of partnership in which any of them is a partner, employee, agent, or attorney, or through a partner of any of them, or through a corporation in which any of them is an officer, director, employee, agent, or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has, or has had any business or financial relationship, other than any ordinary depositor or customer relationship with or by a retail establishment, public utility, or bank, including any gift or donation having a value of more than \$100, singularly or in the aggregate, with any of those listed in Par. 1 above.

**EXCEPT AS FOLLOWS:** (NOTE: If answer is none, enter "NONE" on line below.)

NONE.

**NOTE:** Business or financial relationships of the type described in this paragraph that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings. See Par. 4 below.)

(check if applicable)  There are more disclosures to be listed and Par. 3 is continued on a "Special Exception Attachment to Par. 3" form.

4. That the information contained in this affidavit is complete, that all partnerships, corporations, and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land have been listed and broken down, and that prior to each and every public hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including business or financial relationships of the type described in Paragraph 3 above, that arise on or after the date of this application.

WITNESS the following signature:

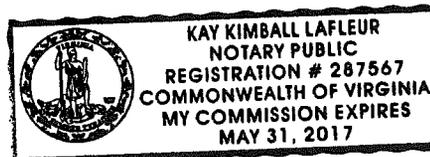
(check one)  Applicant  Applicant's Authorized Agent

Charles B. Fromm, Agent for Applicant  
(type or print first name, middle initial, last name, and & title of signee)

Subscribed and sworn to before me this 30th day of April 20 14, in the State/Comm. of Virginia, County/City of Fairfax.

Kay Kimball Lafleur  
Notary Public

My commission expires: 5/31/2017



FORM SEA-1 Updated (7/1/06) • Information updated since the printing of the 2/13/14 Staff Report.

## AGREEMENT

This AGREEMENT (“Agreement”) is made as of \_\_\_\_\_, 2014, by and between FURNACE ASSOCIATES, INC., a Virginia corporation (“Furnace”), and the BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA, a political subdivision of the Commonwealth of Virginia (“the Board”).

## RECITALS

WHEREAS, Furnace is the owner of 8.86 acres of real property located in Fairfax County, Virginia, at 10018 Furnace Road and 10100 Furnace Road and shown on Fairfax County Tax Map Number 113-1((1)) parcels 12 and 13 (“Property”); and

WHEREAS, the Property is the subject of Rezoning Application No. RZ 2000-MV-034 and SE 00-V-040, which were approved by the Board of Supervisors on January 8, 2001, and allow for the operation on the Property of a mixed waste reclamation facility (“MWRF”), subject to proffered conditions dated December 11, 2000, development conditions dated January 8, 2001, and a Generalized Development Plan/Special Exception Plat; and

WHEREAS, Furnace has a pending special exception application, SEA 80-L/V-061-02 (“SEA Application”), to modify a landfill located across Furnace Road from the Property, which is known as the Lorton Landfill (“Landfill”), and

WHEREAS, Furnace has determined, in conjunction with the filing of an amended SEA Application on July 23, 2014, that it intends to impose certain restrictions on traffic entering and exiting the Property as a benefit to the Landfill and the community surrounding the Landfill and the Property should the SEA Application, as amended by the applicant, be approved by the Board;

THEREFORE, in consideration of the mutual covenants and agreements set forth in this Agreement, as well as other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Furnace does hereby agree to the following restrictions on the Property should the SEA Application, as amended by the applicant, be approved by the Board, as further set forth herein:

## **AGREEMENT**

1. Truck Traffic Access to the Property. Commercial truck traffic to and from the Property shall enter the Property only from the south. Commercial truck traffic shall be prohibited from making right turns into and left turns out of the Property. The only exception to the prohibition on commercial truck left-hand turns out and right-hand turns in will be solely for Furnace's trucks traveling between the MWRF and the landfill entrances. To facilitate the implementation of these restrictions, Furnace further agrees to the following:

A. Signage shall be posted indicating such traffic restrictions at the Property's entrance/exit.

B. Furnace shall inform all regular customers of these restrictions in writing at least twice a year and shall require its regular customers to acknowledge these restrictions in writing upon receipt.

C. Furnace shall install a video monitoring system that will record commercial vehicles accessing the MWRF (both entering and exiting), and such system will be routinely monitored by Furnace's staff who will actively enforce the truck access restriction during operating hours. Furnace will prohibit repeat offenders from using MWRF.

2. Hours of Operation. Materials may be accepted and clearing and grading of any kind may take place on the Property only between the hours of 7:00 a.m. until 8:00 p.m., Monday through Saturday.

3. Governing Law. This Agreement is governed by the laws of the Commonwealth of Virginia and is binding upon the Landowners and their successors and assigns.

4. Amendments. This Agreement shall not be amended or modified except by an agreement in writing by the parties.

5. Entire Agreement. This Agreement shall constitute the entire agreement between the parties regarding the matters set forth herein and any prior understanding or representation of any kind preceding the date of this agreement

shall not be binding upon the parties except to the extent incorporated in this Agreement.

6. Binding Effect. Furnace agrees that the terms, conditions, and covenants stated in this Agreement are not personal to Furnace but run with the land and shall be binding upon Furnace, its employees, agents, heirs, personal representatives, successors, and assigns.

7. Recordation. This agreement shall be recorded among the land records of Fairfax County, Virginia.

8. Severability. If any term or provision of this Agreement or any portion of a term or provision hereof or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Agreement shall not be affected thereby, and each remaining term and provision of this Agreement and each portion thereof shall be valid and be enforced to the fullest extent permitted by law.

9. Duplicate Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

**FURNACE ASSOCIATES, INC.:**

By: \_\_\_\_\_  
Name:  
Title:

**THE BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA,**  
a political subdivision of the Commonwealth of Virginia

By: \_\_\_\_\_  
Name:  
Title: