

Howard County Curbside Food Scrap Processing Facility

May 30, 2012



Bureau of Environmental Services
Howard County, Maryland



Food Scrap Collection

- Mini- Pilot (34 homes)
 - August 2010 to January 2011
- Full Scale Pilot (over 1020 homes)
 - September 2011 to present
 - Food Scraps are 25% of trash weight!
- Pilot Processing facility to start Summer 2012!



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Types of Material Collected:

- Fruit and vegetable scraps (fresh or cooked)
- Egg shells
- Bread, pasta, beans, grains and nuts
- Coffee grounds, filters and tea bags (no foil or foil-backed products)
- Paper towels and napkins with food residue on them
- Uncoated paper plates
- Pizza boxes (remove any non-food items)
- Paper egg cartons or paper bags



Compost Processing Facility

- What needs are we meeting?
 - Reduce waste and increase recycling
- Recycle Yard Trim
 - Residential, Commercial, Government
- Food Scrap
 - Residential
 - No Commercial, Distribution, Restaurant or Institutional
- Material Produced
 - Mulch, Compost, Topsoil, Specialty Mixes



Compost Facility Location

- Alpha Ridge Landfill due to
 - Sustainability Issues, Environmentally Sensitive, lower GHG
 - Lower Cost
 - Existing operating site (County property, staff and equipment present)
 - Utilities exist (scales, water, sewer, electric, fiber optic)
 - Centrally located (lower transportation distances)
 - Existing wood waste operations



Compost Facility Design Issues

- Stormwater
- Process Water
- Permitting
- Technology selection
- Space



Photo courtesy ECS

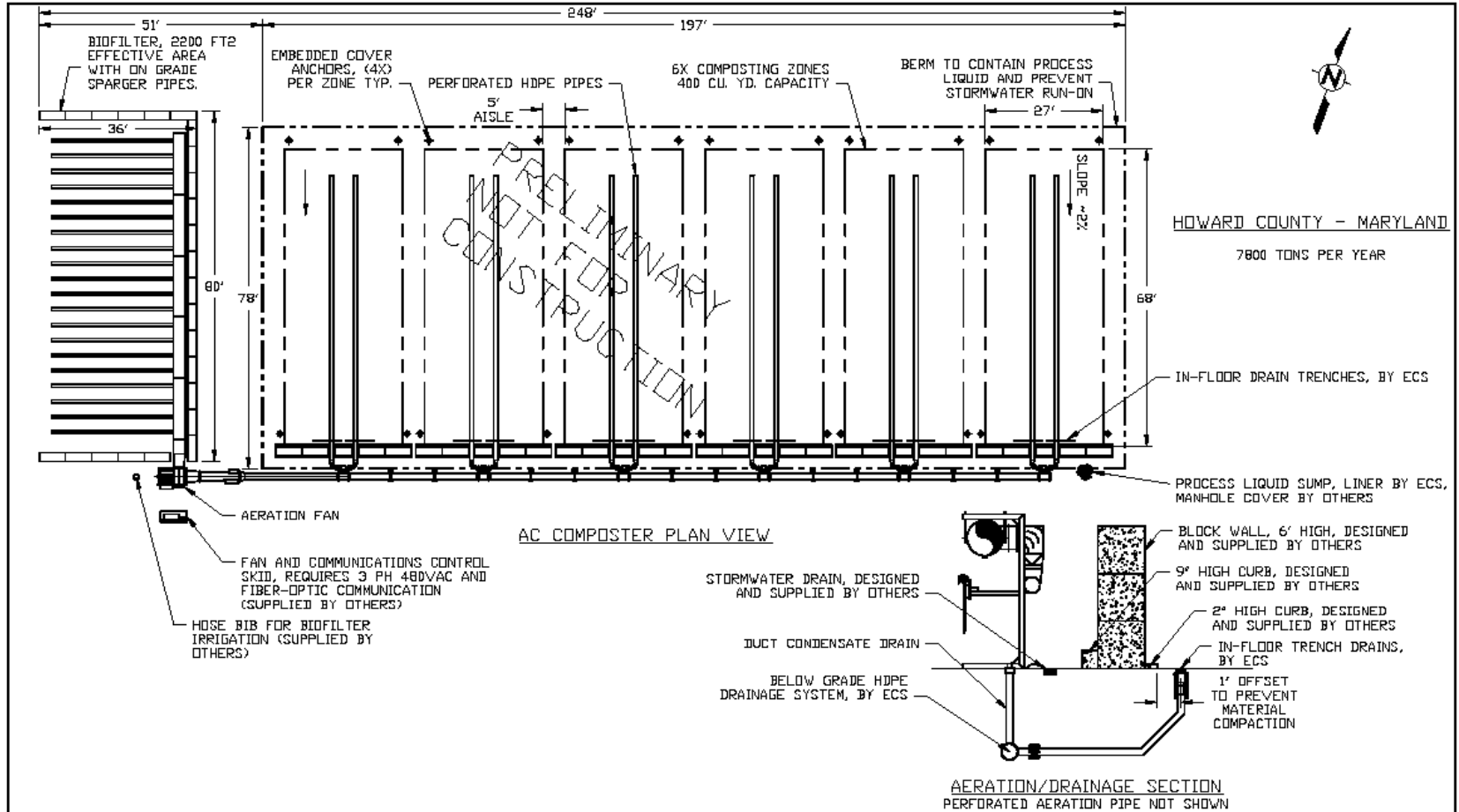


Facility Summary

- Six covered piles – 26' wide, 68' long, 9' high
- Capacity of 1500 cy per month
- Negative aeration; treating odors via biofilter
- 45 days under aeration
- Temperatures >150° F for 3-10 days
- Pilot will have perforated pipes on slab



Site Layout



2	FLOOR DRAINS REVISED	CEVA	7 OCT 2011	TOLERANCES UNLESS OTHERWISE SPECIFIED	ALL DIMS ARE IN INCHES DO NOT SCALE DRAWING	ENGINEERED COMPOST SYSTEMS 201 266 Jones View - Suite 204 2800 TALLahassee, FL 32909 TEL: 888-266-2666 www.ecscompost.com	DESIGNER: CAK	REVISION: B	PROJECT: SITE LAYOUT
1	BIOPILER MOVED TO WEST, FLOOR DRAINS ADDED	EVAH	1 SEP 2011	6 PLACE DECIMALS = 0.0000 3 PLACE DECIMALS = 0.000 FRACTIONS = 1/16 ANGLES = 3/16	FIELD ANGLE FABRICATION 		DRAWN: NTS	DATE: 24 AUG 2011	SHEET: 1 OF 1
NO REVISION							DATE: 24 AUG 2011	PROJECT: HOWARD COUNTY	SHEET: 2

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Covers

60 ft covers weigh 200 lbs
120 ft covers weigh 400 lbs



Stormwater

- Stormwater cannot contact feedstock
- Stormwater must meet ESD standards (Environmental Site Design)



Photo courtesy ECS

Surface water Permit Issues

- NPDES Construction Activity
 - New inspection forms
- NPDES Industrial Activity
 - General or Individual permit required
 - In case of ARL – Individual Industrial NPDES with Stormwater endorsement
 - Update Stormwater Pollution Prevention Plan



Process Water Permit

- Process water will be segregated from storm water
- Process water will be collected and re-used (preferably) or sent to WWTP (not preferred)
- Pre-treatment permit required before connecting to sewer.



Air Permits and Issues

- ODOR, ODOR, ODOR

- Odor Study

No permit limits per se, but site *shall be maintained to prevent air pollution or nuisances*

- Large grinders on site for more than 72 hours are permanent sources, and require “Permit to Construct” and inclusion in Title V permit. (new for Howard Co.)



BioFilters



Photo courtesy ECS

Other Local Permits

- Grading Permit
- Plumbing Permit
- Electrical Permit



Photo courtesy ECS

Other Stuff

- Composting Operations Plan before design approval
- Internet connection is required for remote monitoring of system.
- Revised our Natural Wood Waste Processing Plan



What's next

- Expand County-wide collections
- In-County processing full-scale with building
- Digester at WWTP for commercial and residential to produce electricity and compost



Questions?

www.howardcountymd.gov/PilotCompost.htm

www.HowardCountyMD.gov/foodscraps.htm

www.HowardCountyRecycles.org

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