County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

March 25, 2009

Lynne J. Strobel
Walsh, Colucci, Lubeley, Emrich & Walsh, P.C.
2200 Clarendon Boulevard, 13th Floor
Arlington, Virginia 22201

RE: Rezoning Application RZ 2008-LE-002
(Concurrent with Special Exception Amendment Application SEA 78-L-074-06)

Dear Ms. Strobel:

Enclosed you will find a copy of an Ordinance adopted by the Board of Supervisors at a regular meeting held on March 9, 2009, granting Rezoning Application RZ 2008-LE-002 in the name of Hilltop Sand and Gravel Company, Inc. The Board's action rezones certain property in the Lee District from the I-3 and NR Districts to the R-1 and NR Districts and permits continuation of existing landfill and future recreation facilities. The subject property is located northeast of Beulah Street, approximately 1,000 feet north of its intersection with Telegraph Road, on approximately 3.51 acres of land [Tax Map 100-1 ((1)) 9 pt.].

The Board also:

- Waived the transitional screening yard and barrier requirements along all boundaries of the landfill to that depicted on the GDP/SEA Plat.

Sincerely,

Nancy Vehrs

Nancy Vehrs
Clerk to the Board of Supervisors
NV/dms
Enclosure

Office of the Clerk to the Board of Supervisors
12000 Government Center Parkway, Suite 533
Fairfax, Virginia 22035
Phone: 703-324-3151 ♦ Fax: 703-324-3926 ♦ TTY: 703-324-3903
Email: clerktothebos@fairfaxcounty.gov
http://www.fairfaxcounty.gov/bosclerk

Cc: Chairman Sharon Bulova
Supervisor Jeff C. McKay, Lee District
Janet Coldsmith, Director, Real Estate Division. Dept. of Tax Administration
Regina Coyle, Director, Zoning Evaluation Division, DPZ
Diane Johnson-Quinn, Deputy Zoning Administrator, Dept. of Planning and Zoning
Thomas Conry, Dept. Manager. – GIS - Mapping/Overlay
Angela K. Rodeheaver, Section Chief, Transportation. Planning Division
Ellen Gallagher, Capital Projects and Operations Div., Dept. of Transportation
Ken Williams, Plans & Document Control, ESRD, DPWES
Department of Highways-VDOT
Sandy Stallman, Park Planning Branch Manager, FCPA
Charlene Fuhrman-Schulz, Development Officer, DHCD/Design Development Division
District Planning Commissioner
Barbara J. Lippa, Executive Director, Planning Commission
Denise James, Office of Capital Facilities/Fairfax County Public Schools
Karyn Moreland, Chief Capital Projects Sections, Dept. of Transportation

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Auditorium in the Government Center at Fairfax, Virginia, on the 9th day of March, 2009, the following ordinance was adopted:

AN ORDINANCE AMENDING THE ZONING ORDINANCE
PROPOSAL NUMBER RZ 2008-LE-002
(Concurrent with Special Exception Amendment Application SEA 78-L-074-06)

WHEREAS, Hilltop Sand and Gravel Company, Inc., filed in the proper form an application requesting the zoning of a certain parcel of land herein after described, from the I-3 and NR Districts to the R-1 and NR Districts, and

WHEREAS, at a duly called public hearing the Planning Commission considered the application and the propriety of amending the Zoning Ordinance in accordance therewith, and thereafter did submit to this Board its recommendation, and

WHEREAS, this Board has today held a duly called public hearing and after due consideration of the reports, recommendation, testimony and facts pertinent to the proposed amendment, the Board is of the opinion that the Ordinance should be amended,

NOW, THEREFORE, BE IT ORDAINED, that that certain parcel of land situated in the Lee District, and more particularly described as follows (see attached legal description):

Be, and hereby is, zoned to the R-1 and NR Districts, and said property is subject to the use regulations of said R-1 and NR Districts, and further restricted by the conditions proffered and accepted pursuant to Va. Code Ann., 15.2-2303(a), which conditions are in addition to the Zoning Ordinance regulations applicable to said parcel, and

BE IT FURTHER ENACTED, that the boundaries of the Zoning Map heretofore adopted as a part of the Zoning Ordinance be, and they hereby are, amended in accordance with this enactment, and that said zoning map shall annotate and incorporate by reference the additional conditions governing said parcel.

GIVEN under my hand this 9th day of March, 2009.

Nancy Vehrs

Nancy Vehrs
Clerk to the Board of Supervisors

RZ 2008-LE-002

PLEASE TYPE OR PRINT IN BLACK INK

RECEIVED
Department of Planning & Zoning
FEB 13 2008
Zoning Evaluation Division
99525

COMMONWEALTH OF VIRGINIA
COUNTY OF FAIRFAX
APPLICATION FOR ZONING MAP AMENDMENT

APPLICATION NO. RZ 2008-LE-002
(Assigned by Staff)

PETITION

TO: THE BOARD OF SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA

I (We), Hilltop Sand and Gravel Company, Inc., the applicant(s), petition you to adopt an ordinance amending the Zoning Map of Fairfax County, Virginia, by reclassifying from the I-3 District to the R-1 District the property described below and outlined in red on the Zoning Section Sheet(s) accompanying and made a part of this application.

PROPERTY DESCRIPTION

LEGAL DESCRIPTION:
Metes and bounds - See Attached

Lot(s)	Block(s)	Subdivision	Deed Book	Page No.

TAX MAP DESCRIPTION:

Map No.	Double Circle No.	Single Circle No.	Parcel(s)/Lot(s) No.	Total Area(Ac.or Sq.Ft.)
100-1	((1))		9 pt.	Approx. 3.51 acres

POSTAL ADDRESS OF PROPERTY: (If any)
7950 Telegraph Road
Alexandria, Virginia 22315

ADVERTISING DESCRIPTION: (Ex. South of Rt. 236, 1000 feet west of Rt. 274)
North~~western~~east quadrant of the intersection of Beulah Street (Rt. 613) and Telegraph Rd. (Rt. 611)

PRESENT USE: Industrial (landfill)

PROPOSED USE: Quasi-public recreation facilities

SUPERVISOR DISTRICT: Lee

The name(s) and address(s) of owner(s) of record shall be provided on the affidavit form attached and made part of this application.

The undersigned has the power to authorize and does hereby authorize Fairfax County staff representatives on official business to enter on the subject property as necessary to process the application.

Lynne J. Strobel, Agent
Type or Print Name of Applicant or Agent

Lynne J. Strobel
Signature of Applicant or Agent

Walsh, Colucci, Lubeley, Emrich & Walsh, P.C.
2200 Clarendon Boulevard, 13th Floor, Arlington, VA 22201
Address

Telephone No. Home Work 703-528-4700

Please provide name and telephone number of contact person if different from above.

3/28/08 LR
RZ 2008-0049

NOT WRITE IN THIS SPACE

Date application received: _____ Application Fee Paid: $9,560.00

Date application accepted: 3/25/2008 Virginia Ruffner

Form RZ (10/89)

4108718

ZAPS USER GENERATED REPORTS

ZONING APPLICATION SUMMARY REPORT

APPLICATION NUMBER: RZ 2008-LE-002

DECISION DATE: 3-9-2009 **HEARING BODY:** BOS

CRD: NO **MAGISTERIAL DISTRICT:** LEE

APPLICANT NAME HILLTOP SAND AND GRAVEL COMPANY, INC.

STAFF COORDINATOR: CLEWI4 **ACTION:** APPROVE

DECISION SUMMARY:

ON MARCH 9, 2009, THE BOARD UNANIMOUSLY APPROVED RZ 200
8-LE-002, ON A MOTION BY SUPERVISOR MCKAY.□□□□NO PROFFE
RS

ZONING INFORMATION

EXISTING ZONING		PROPOSED ZONING		APPROVED ZONING	
DISTRICT	AREA	DISTRICT	AREA	DISTRICT	AREA
I- 3	3.51 ACRES	R- 1	3.51 ACRES	R- 1	3.51 ACRES
TOTAL	3.51 ACRES	TOTAL	3.51 ACRES	TOTAL	3.51 ACRES

TAX MAP NUMBERS

100-1- /01/ /0009-

APPROVED ZONING DISTRICT DATA

ZONING DISTRICT: R- 1

	APROVED RESIDENTIAL DEVELOPMENT				APROVED NON-RESIDENTIAL DEVELOPMENT				
LAND USE	DWELLING UNITS	LAND AREA	UNIT OF MEASURE	NO. OF ADU'S	FLOOR AREA	UNIT OF MEASURE	LAND AREA	UNIT OF MEASURE	FAR
PUBLIC/USE							3.51	ACRES	
QUASI/PARK									
TOTAL							3.51	ACRES	

WAIVERS/MODIFICATIONS

APPROVED WAIVERS/MODIFICATIONS

MODIFY ADDITIONAL STANDARD 9

WAIVE BARRIER REQUIREMENT

WAIVE TRANSITIONAL SCREENING REQUIREMENT

SUPPLEMENTAL MOTIONS

SUPPLEMENTAL MOTIONS APPROVED

February 4, 2008

DESCRIPTION
OF PART OF THE PROPERTY OF
HILLTOP SAND AND GRAVEL COMPANY, INC.
LEE DISTRICT
FAIRFAX COUNTY, VIRGINIA

Beginning at a point in the property of Hilltop Sand and Gravel Company, Inc., said point being N52°19'09"W, 351.33 feet from a point marking the most northerly corner of Fairfax County Board of Supervisors Property; thence through the property of Hilltop Sand and Gravel Company, Inc. the following courses: S63°57'20"W, 546.11 feet; N03°25'57"E, 48.63 feet; N22°20'07"E, 642.72 feet; N75°00'27"E, 23.30 feet; S60°26'31"E, 36.35 feet; S47°27'33"E, 115.36 feet; S19°45'22"E, 150.88 feet and S17°17'59"E, 179.48 feet to the point of beginning, containing 3.51 acres of land.

All being more particularly described on a plat hereto attached and made a part hereof.

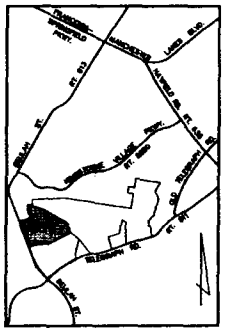
P:\DESCRIPTIONS\2007\HilltopSandandGravelCompanyInc.

RECEIVED
Department of Planning & Zoning
FEB 13 2008
Zoning Evaluation Division

HILLTOP CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL

Lee District Fairfax County, Virginia

GENERALIZED DEVELOPMENT PLAN / SPECIAL EXCEPTION AMENDMENT



VICINITY MAP
SCALE : 1"= 2,000'

Applicant:

Hilltop Sand and Gravel Company, Inc.
7950 Telegraph Road
Alexandria, VA 22315

Sheet Index

1. COVER SHEET
2. GENERALIZED DEVELOPMENT PLAN / SPECIAL EXCEPTION AMENDMENT - PHASE I
3. GENERALIZED DEVELOPMENT PLAN / SPECIAL EXCEPTION AMENDMENT - PHASE II / NOTES AND TABULATION
4. STORMWATER MANAGEMENT - OUTFALL NARRATIVE
5. STORMWATER MANAGEMENT - NARRATIVES
6. STORMWATER MANAGEMENT
7. STORMWATER MANAGEMENT

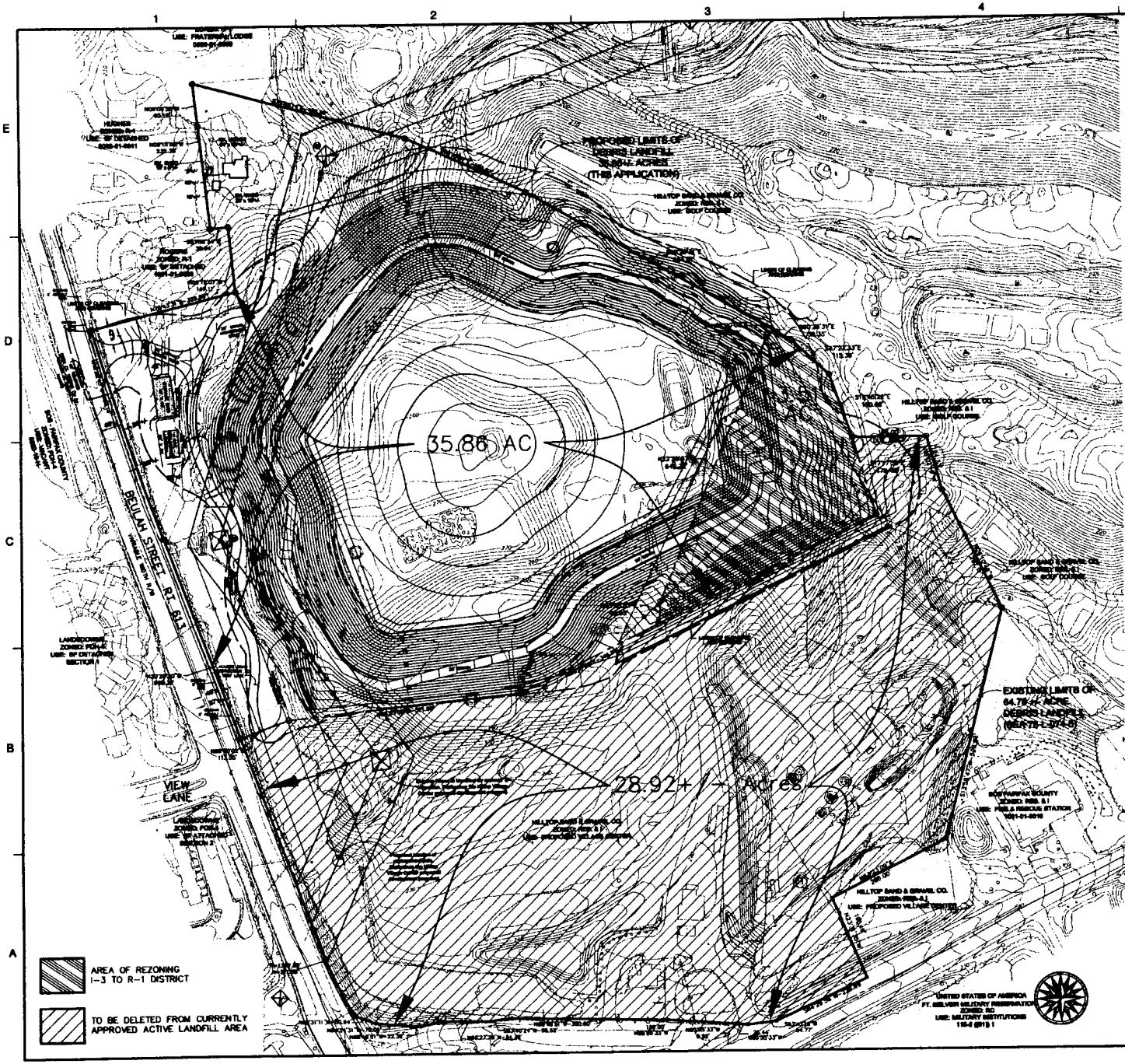
Hilltop Construction and Demolition Debris Landfill
Generalized Development Plan / Special Exception Amendment

Dewberry

Dewberry & Davis LLC

Revision: 12.16.08
Revision: 12.02.08
Revision: 10.17.08
February 12, 2008

M-10694



PREVIOUSLY APPROVED AREA OF DEBRIS LANDFILL: (SEA 78-L-074-5)	64.78+/- ACRES
PROPOSED REDUCTION OF DEBRIS LANDFILL THIS APPLICATION	28.92+/- ACRES
REVISED EXTENT OF DEBRIS LANDFILL THIS APPLICATION	35.86+/- ACRES

SEE NOTES AND TABULATION - SHEET 3 OF 7

Dewberry

Dewberry & Davis LLC

HILLTOP CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL

GENERALIZED DEVELOPMENT PLAN / SPECIAL EXCEPTION AMENDMENT

LEE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE
0' 100' 200'

No.	DATE	BY	Description
3	12.16.08	drwn	Revised Limits of Permanent Retained Site
2	12.02.08	DMC	ADD SEWA
1	10.17.08		No Change

REVISIONS

DRAWN BY ARM
APPROVED BY
CHECKED BY LM
DATE February 12, 2008

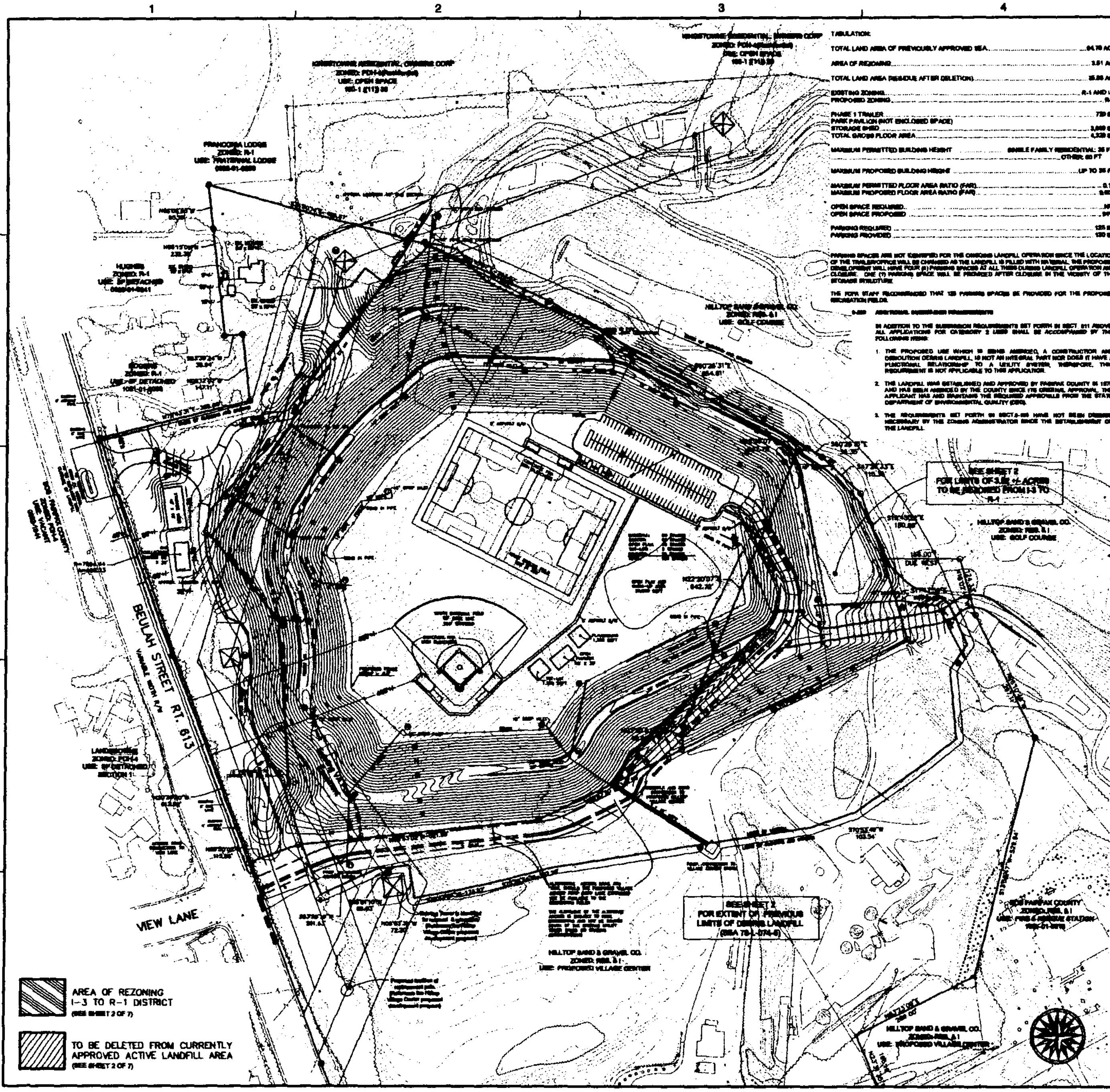
TITLE
Hilltop Construction and Demolition Debris Landfill
GDP / SEA
PHASE I

PROJECT NO.

2

SHEET NO. 2 OF 7

M-10694



TABULATION:

TOTAL LAND AREA OF PREVIOUSLY APPROVED SEA	64.70 AC
AREA OF REZONING	3.51 AC
TOTAL LAND AREA (RESIDUE AFTER DELETION)	35.88 AC
EXISTING ZONING	R-1 AND I-3
PROPOSED ZONING	R-1
PHASE 1 TRAILER	720 SF
PARK PAVILION (NOT ENCLOSED SPACE)	
STORAGE SHED	3,600 SF
TOTAL GROSS FLOOR AREA	4,320 SF
MAXIMUM PERMITTED BUILDING HEIGHT	SINGLE FAMILY RESIDENTIAL: 35 FT; OTHER: 60 FT
MAXIMUM PROPOSED BUILDING HEIGHT	UP TO 35 FT
MAXIMUM PERMITTED FLOOR AREA RATIO (FAR)	0.15
MAXIMUM PROPOSED FLOOR AREA RATIO (FAR)	0.003
OPEN SPACE REQUIRED	N/A
OPEN SPACE PROPOSED	94%
PARKING REQUIRED	125 SP
PARKING PROVIDED	130 SP

PARKING SPACES ARE NOT IDENTIFIED FOR THE ONGOING LANDFILL OPERATION SINCE THE LOCATION OF THE TRAILER/OFFICE WILL BE CHANGED AS THE LANDFILL IS FILLED WITH MATERIAL. THE PROPOSED DEVELOPMENT WILL HAVE FOUR (4) PARKING SPACES AT ALL TIMES DURING LANDFILL OPERATION AND CLOSURE. ONE (1) PARKING SPACE WILL BE PROVIDED AFTER CLOSURE IN THE VICINITY OF THE STORAGE STRUCTURE.

THE FCPA STAFF RECOMMENDED THAT 125 PARKING SPACES BE PROVIDED FOR THE PROPOSED RECREATION FIELDS.

9-009 ADDITIONAL SUBMISSION REQUIREMENTS

IN ADDITION TO THE SUBMISSION REQUIREMENTS SET FORTH IN SECT. 011 ABOVE, ALL APPLICATIONS FOR CATEGORY 2 USES SHALL BE ACCOMPANIED BY THE FOLLOWING ITEMS:

1. THE PROPOSED USE WHICH IS BEING AMENDED, A CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL, IS NOT AN INTEGRAL PART NOR DOES IT HAVE A FUNCTIONAL RELATIONSHIP TO A UTILITY SYSTEM, THEREFORE, THIS REQUIREMENT IS NOT APPLICABLE TO THIS APPLICATION.
2. THE LANDFILL WAS ESTABLISHED AND APPROVED BY FAIRFAX COUNTY IN 1979 AND HAS BEEN AMENDED BY THE COUNTY SINCE ITS ORIGINAL APPROVAL. THE APPLICANT HAS AND MAINTAINS THE REQUIRED APPROVALS FROM THE STATE DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ).
3. THE REQUIREMENTS SET FORTH IN SECT. 9-009 HAVE NOT BEEN DEEMED NECESSARY BY THE ZONING ADMINISTRATOR SINCE THE ESTABLISHMENT OF THE LANDFILL.

NOTES:

1. THE PROPERTY THAT IS THE SUBJECT OF THE SPECIAL EXCEPTION AMENDMENT (SEA) AND GENERALIZED DEVELOPMENT PLAN IS IDENTIFIED ON THE FAIRFAX COUNTY TAX MAPS AS 100-1 ((1)) PART 9.
2. THE APPLICANT PROPOSES TO REVISE THE SEA TO REDUCE THE LAND AREA OF THE 64.70 ACRE LANDFILL TO 35.88 ACRES, WHICH IS A REDUCTION OF 28.82 ACRES. THE APPLICANT PROPOSES TO ADJUST THE GRADES TO PERMIT AN INCREASE IN THE AMOUNT OF FILL PERMITTED FROM [illegible] MILLION CUBIC YARDS TO [illegible] MILLION CUBIC YARDS TO PERMIT CONTINUED OPERATION OF A CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL ON AN INTERIM BASIS (PHASE 1). ONCE CONTOURS ARE BROUGHT TO GRADE AN ACTIVE RECREATION AREA WILL BE ESTABLISHED (PHASE 2). THE APPLICANT PROPOSES TO REZONE 3.51 ACRES FROM THE I-3 TO THE R-1 DISTRICT TO PERMIT THE ESTABLISHMENT OF AN ACTIVE RECREATION FACILITY ON APPROXIMATELY ELEVEN (11) ACRES WHEN THE LANDFILL MEETS ITS APPROVED CONTOUR ELEVATIONS AND IS CLOSED.
3. THE TOPOGRAPHIC INFORMATION HEREON IS FROM AERIAL SURVEY, AT TWO FOOT CONTOUR ELEVATIONS, FROM VIRGINIA RESOURCE MAPPING FLOWN IN DECEMBER 2007.
4. THE BOUNDARY INFORMATION IS FIELD RUN BY DEWBERRY & DAVIS LLC.
5. A STATEMENT THAT CONFIRMS THE OWNERSHIP OF THE PROPERTY, AND THE NATURE OF THE APPLICANT'S INTEREST IN SAME, IS PROVIDED IN A SEPARATE ASSOCIATED DOCUMENT.
6. PUBLIC UTILITIES ARE AVAILABLE TO THE SITE AND WILL BE EXTENDED AS REQUIRED BY THE PROPOSAL.
7. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO GRAVES ON THE SUBJECT PROPERTY.
8. THERE IS NO FLOODPLAIN, RESOURCE PROTECTION AREA (RPA) OR ENVIRONMENTAL QUALITY CORRIDOR (EQC) ON THE SUBJECT PROPERTY.
9. THERE ARE EXISTING STRUCTURES ON THE SUBJECT PROPERTY THAT SHALL REMAIN.
10. THERE IS A UTILITY GREATER THAN TWENTY-FIVE (25) FEET ON THE SUBJECT PROPERTY IN THE FORM OF A 120 FOOT VEPCO EASEMENT WHICH HOUSES OVERHEAD TRANSMISSION LINES. AN EXISTING TOWER SOUTHWEST OF THE SUBJECT PROPERTY IS PROPOSED FOR RELOCATION WHICH WILL RESULT IN ADJUSTMENT TO THE UTILITY EASEMENT ALIGNMENT, AS DEPICTED ON THE GRAPHIC. IN ADDITION, THERE ARE NO MAJOR UNDERGROUND UTILITIES ON THE SUBJECT PROPERTY.
11. THE USE OF ADJACENT PROPERTY TO THE NORTH AND EAST IS A GOLF COURSE OPERATION ON TOP OF A CLOSED LANDFILL; A MIXED USE DEVELOPMENT (HILLTOP VILLAGE CENTER) IS PROPOSED ON THE 30 ACRES TO THE SOUTH. THE WESTERN BOUNDARY ABUTS BEULAH STREET AND FOUR (4) R-1 ZONED PARCELS ARE LOCATED TO THE NORTHWEST, ONE OF WHICH IS THE FRANCONIA LODGE.
12. THE EXISTING SITE DOES NOT INCLUDE SCENIC ASSETS WORTHY OF PROTECTION.
13. STORMWATER MANAGEMENT WILL BE PROVIDED AND WILL COMPLY WITH THE REQUIREMENTS OF THE PUBLIC FACILITIES MANUAL AS DETERMINED BY THE DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES (DPWES). IT IS ANTICIPATED THAT THE STORMWATER MANAGEMENT WILL BE CONTROLLED BY TWO (2) WET PONDS ON PROPERTY UNDER THE SAME OR AFFILIATE OWNERSHIP AS THE APPLICANT OF THIS SUBMISSION.
14. IN PHASE 1 OF THE PROPOSED DEVELOPMENT PROJECT, THERE WILL BE A NEED FOR A 12X60 FOOT TRAILER ON A 1000 SQUARE FOOT PAD WHICH WILL BE USED FOR THE ADMINISTRATION OF THE ACTIVE LANDFILL AND FOR COLLECTING TIPPING FEES FROM USERS. IT IS NOTED THAT THE LOCATION OF THE TRAILER AND PAD WILL BE MOVED PERIODICALLY TO ACCOMMODATE THE CHANGING GRADES BUT AT NO POINT WILL IT BE PLACED CLOSER TO THE PERIMETER OF THE SUBJECT PROPERTY THAN ALLOWED UNDER THE BULK REGULATION OF THE R-1 ZONE PURSUANT TO PARAGRAPH 25 OF SECT. 3-107 AS STIPULATED IN PARAGRAPH 2 OF SECTION 9-304 OF THE ZONING ORDINANCE.
15. THE COMPREHENSIVE PLAN MAP IDENTIFIES A PEDESTRIAN / BICYCLE TRAIL ALONG THE BEULAH STREET FRONTAGE OF THE PROPERTY WHICH IS AS SHOWN ON THE GRAPHIC.
16. THERE ARE PROPOSED IMPROVEMENTS TO THE EXISTING PUBLIC RIGHT-OF-WAY WHERE THE PROPERTY IS CONTIGUOUS TO BEULAH STREET AS SHOWN HEREON. A STATEMENT OF IMPROVEMENTS PROPOSED AND THE TIMING OF SUCH IMPROVEMENTS SHALL BE PROVIDED AS DESCRIBED IN THE PROFFERS ASSOCIATED WITH RZ 2008-LE-[illegible].
17. INTERIM ACCESS FROM BEULAH STREET TO THE LANDFILL OPERATION WILL BE ACCOMMODATED BY THE INTERIM SHORTENING THE MEDIAN IN BEULAH STREET AS SHOWN ON THE GRAPHIC. UPON ACCEPTANCE OF THE LANDFILL CLOSURE BY DEQ, THE MEDIAN SEGMENT WILL BE REPLACED.
18. THE SUBJECT PROPERTY IS IN THE LEHIGH COMMUNITY PLANNING SECTOR (RH-4) IN THE ROSE HILL PLANNING DISTRICT OF AREA IV. THE COMPREHENSIVE PLAN RECOMMENDS PRIVATE RECREATION AND AS AN OPTION RESIDENTIAL USE AT 2-3 DWELLING UNITS PER ACRE, PROVIDED THERE IS SUBSTANTIAL PARCEL CONSOLIDATION AND CONSOLIDATED ACCESS. THIS PROPOSAL IS IN CONFORMANCE WITH THE COMPREHENSIVE PLAN.
19. THE PROPOSED DEVELOPMENT AS PRESENTED WILL PROVIDE AN ACTIVE RECREATION FACILITY IN THIS AREA OF THE COUNTY. THIS APPLICATION PROPOSES CONVERTING THE LANDFILL AREA TO AN ACTIVE RECREATION COMPLEX UPON CLOSURE OF THE LANDFILL IN ACCORDANCE WITH (1) REVISION NO 2. CLOSURE AND POST CLOSURE CARE PLAN, HILLTOP SAND AND GRAVEL LANDFILL, PREPARED BY SCS ENGINEERS, DATED AUGUST 27, 2008 AND REVISED THROUGH OCTOBER 14, 2008, AND (2) VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY APPROVAL FOR THE HILLTOP CONSTRUCTION DEBRIS LANDFILL, PERMIT NO. 358, CLOSURE AND POST-CLOSURE CARE PLAN FOR PHASES II AND III DATED NOVEMBER 10, 2008. THE AREA CONSISTS OF APPROXIMATELY ELEVEN (11) ACRES AND IT IS PLANNED TO INCLUDE AN ADULT SOCCER FIELD, YOUTH BASEBALL FIELD, OPEN PLAY AREA, TOT LOT, PLAYGROUND, PAVILION AND ACCESSORY PARKING AS REQUIRED.
20. THE EXACT PHASING SCHEDULE OF THIS PROPOSAL WILL COINCIDE WITH THE REFERENCED CLOSURE PLAN ACHIEVING THE PLANNED CAPACITY OF THE LANDFILL WHICH WILL BE DICTATED BY MARKET CONDITIONS.
21. VEHICULAR ACCESS TO THE PROPOSED RECREATION CENTER SHALL BE FROM THE PROPOSED HILLTOP VILLAGE CENTER VIEW LANE EXTENDED ACCESS DRIVE. IN THE EVENT SAID ACCESS DRIVE IS NOT AVAILABLE TO ACCESS THE RECREATION AREA, THE APPLICANT WILL CONSTRUCT A HALF SECTION OF THAT DRIVE AS DEPICTED ON THE GRAPHIC.
22. IT IS UNDERSTOOD THAT MINOR ADJUSTMENTS INCLUDING THOSE REQUESTED BY THE FAIRFAX COUNTY PARK AUTHORITY, IN THE ORIENTATION OF THE RECREATION FACILITIES MAY BE MADE AT TIME OF SITE PLAN.
23. AT A MINIMUM, PARKING WILL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 11 OF THE FAIRFAX COUNTY ZONING ORDINANCE. THE NUMBER AND LOCATION OF ACCESSIBLE PARKING SPACES WILL BE DETERMINED AT TIME OF SITE PLAN SUBMISSION AND WILL BE IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 11 OF THE ZONING ORDINANCE. THE APPLICANT RESERVES THE RIGHT TO ADD ADDITIONAL PARKING SPACES PROVIDED THE AMOUNT OF OPEN SPACE AND THE DISTANCE TO THE PERIMETER LOT LINES IS NOT DIMINISHED.
24. PURSUANT TO PAR. 8 OF SECT. 9-305 OF THE ZONING ORDINANCE, THE APPLICANT REQUESTS A WAIVER TO PERMIT SITE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO PARKING, VEHICULAR DRIVES, SIDEWALKS, PLAYFIELDS AND LANDSCAPING WITHIN THE LIMITS OF A FORMER LANDFILL PRIOR TO THE STIPULATED TWENTY (20) YEAR PERIOD FROM TERMINATION OF THE LANDFILL OPERATIONS SUBJECT TO THE APPROVAL CRITERIA SAID PARAGRAPH 8.
25. PURSUANT TO PAR. 1 OF SECT. 13-304 OF THE ZONING ORDINANCE, A WAIVER OF THE TRANSITIONAL SCREENING AND BARRIER REQUIREMENTS IS REQUESTED ON THE NORTH, EAST, SOUTH AND WESTERN BOUNDARIES OF THE SUBJECT PROPERTY. THE REUSE OF THE PROPERTY AS A RECREATION FACILITY IN LIEU OF THE EXISTING LANDFILL OPERATION CREATES AN ENHANCED COMMUNITY AMENITY.
26. THE PROPOSED USE WILL NOT GENERATE, UTILIZE, STORE, TREAT OR DISPOSE OF ANY HAZARDOUS OR TOXIC SUBSTANCES AS SET FORTH IN TITLE 40, CODE OF FEDERAL REGULATIONS PARTS 116.4, 302.4 AND 355 WITH THE EXCEPTION OF METHANE, GENERATED BY THE LANDFILL, WHICH WILL BE REGULATED IN ACCORDANCE WITH THE RULES AND POLICIES OF THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY AND THE FAIRFAX COUNTY FIRE MARSHALL'S OFFICE; ANY HAZARDOUS WASTE AS SET FORTH IN THE COMMONWEALTH OF VIRGINIA/DEPARTMENT OF WASTE MANAGEMENT VR 672-10-1 - VIRGINIA HAZARDOUS WASTE MANAGEMENT REGULATIONS; AND/OR ANY PETROLEUM PRODUCTS AS DEFINED IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 280.
27. ARCHITECTURAL ELEVATIONS ARE NOT RELEVANT TO THIS PROPOSAL.
28. THE PROPOSED IMPROVEMENTS TO THE SITE AND BUILDINGS ARE BASED ON PRELIMINARY DESIGN. IT IS TO BE UNDERSTOOD THAT THE FINAL IMPROVEMENTS MAY BE MODIFIED IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN PAR. 4 OF SECT. 9-004 OF THE ZONING ORDINANCE SO LONG AS THE OPEN SPACE REPRESENTED IN THE TABULATION AND THE MINIMUM DIMENSIONS TO THE PERIPHERAL LOT LINES ARE NOT DIMINISHED.
29. TO THE BEST OF OUR KNOWLEDGE, THE PROPOSED DEVELOPMENT CONFORMS TO ALL CURRENT APPLICABLE LAND DEVELOPMENT ORDINANCES AND ADOPTED STANDARDS EXCEPT AS NOTED HEREIN.

Dewberry

Dewberry & Davis LLC

HILLTOP CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL

GENERALIZED DEVELOPMENT PLAN / SPECIAL EXCEPTION AMENDMENT

LEE DISTRICT

FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
PROFESSIONAL ENGINEER
12-16-08

KEY PLAN

SCALE

0' 100' 200'

No.	DATE	BY	Description
3	12.16.08	DMC	[illegible]
2	12.[illegible].08	DMC	[illegible]
1	10.17.08		Rec.Facility Layout

REVISIONS

DRAWN BY: ARW

APPROVED BY:

CHECKED BY: LM

DATE: February 12, 2008

TITLE

Hilltop Construction and Demolition Debris Landfill

GDP / SEA

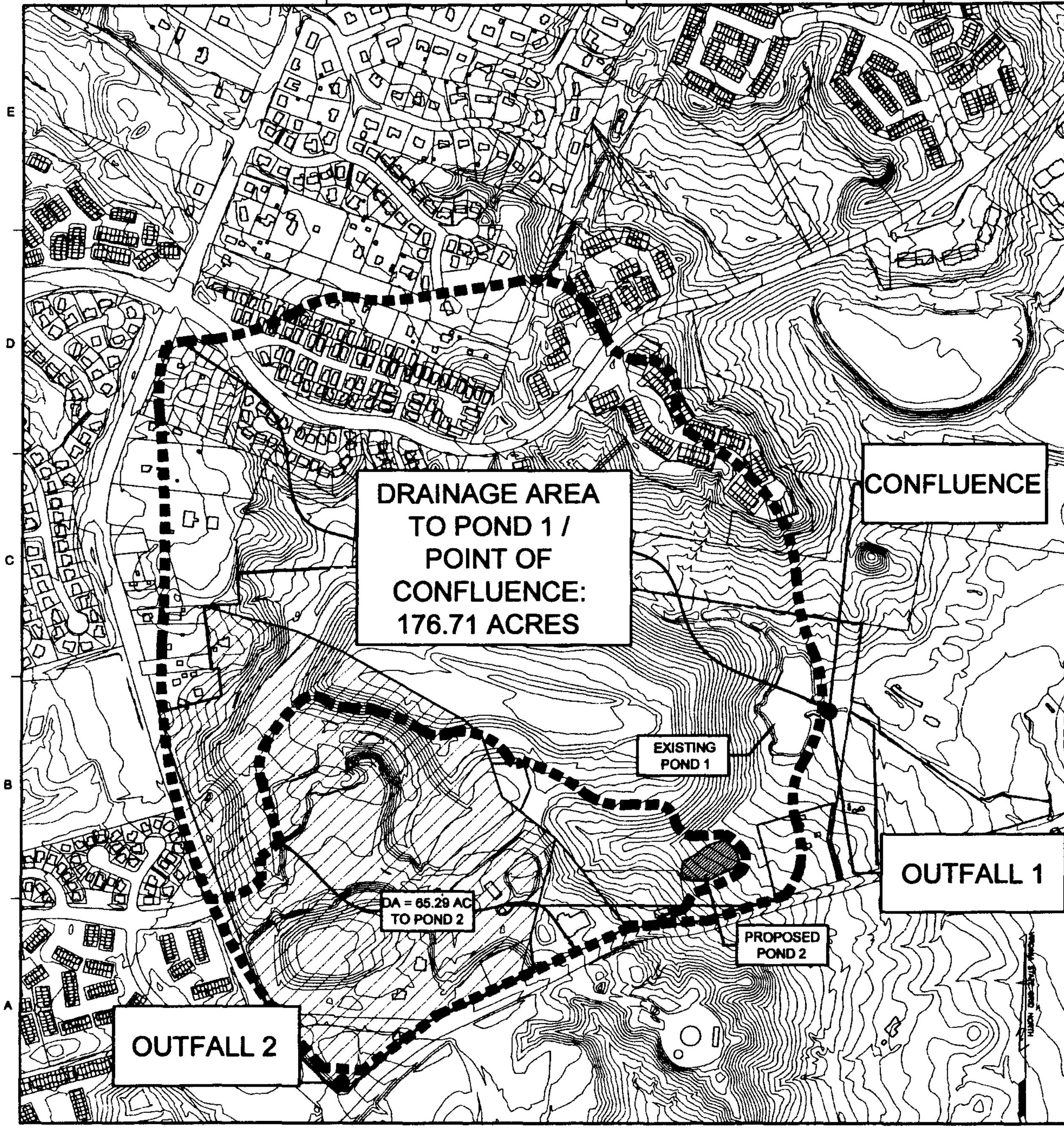
PHASE II

PROJECT NO.

3

SHEET NO. 3 OF 7

M-10694



Hilltop Village Center and Recreation Area Stormwater Management (SWM) AND DRAINAGE OUTFALL Narrative

I. Stormwater Management

The Hilltop Village Center (33± AC) and Recreation Area (35.86 AC) (project site) is a 68.86 acre development located in southeastern Fairfax County predominantly within the Dogue Creek watershed. The project site includes commercial and recreational uses and is a part of the overall Hilltop Sand and Gravel site (151 acres) where existing land use includes an active debris land fill and a nine hole golf course.

The majority of the overall Hilltop Sand and Gravel site, including the proposed Hilltop Village Center and Recreation Area site, drains to an existing stormwater management facility (wet pond) known as existing Pond 1. The drainage area for existing Pond 1 is 242 acres, of which 136 acres comes from the Hilltop Sand and Gravel site and 106 acres comes from the adjacent Kingstowne development. A 1986 site plan for the Hilltop Reclamation Project demonstrated that the existing Pond 1 provides stormwater detention and BMP for that portion of the Hilltop site draining to the facility assuming current land uses (i.e. nine hole golf course and active debris land fill). A small portion of the proposed Hilltop Village Center site (4 acres) located at the intersection of Telegraph Road and Beulah Street does not drain to existing Pond 1 but instead drains to the west into an existing storm sewer system along Telegraph Road, labeled as Outfall 2.

The proposed commercial and recreational uses for the Hilltop Village Center and Recreational Area site will result in increased runoff to Pond 1 which would exceed its original design capacity. Therefore, the majority of the proposed runoff from the 68.86 acre project site will be directed to a proposed new SWM facility (wet pond) referred to as future Pond 2 located 600 feet southeast of Pond 1 outside of the 70 acre project site but within the original Hilltop Sand and Gravel site. In addition, approximately 3 of the 4 acres of the project site that naturally drains to Telegraph Road (Outfall 2) will be directed into Pond 2 to avoid increasing runoff into the existing Telegraph storm sewer system and maintain an adequate drainage outfall. The discharge from Pond 2 will be conveyed via a proposed storm sewer pipe to the outfall immediately downstream of Pond 1. The stormwater detention design for Pond 2 is such that the combined discharge from Ponds 1 and 2 will be less than the predevelopment discharge into the outfall downstream of Pond 1 as shown in the attached computations (HEC-1 model output). The computations for pre-developed runoff and existing Pond 1 are taken from the approved site plan for the Hilltop Reclamation project (County Plan No. 3366-LF-001-1).

The normal pool volume of Pond 2 has been sized to provide 4 times the runoff of the mean storm for the entire acreage of the Hilltop Sand and Gravel site draining to the facility thereby providing a 50% P removal for this area. BMP computations are provided showing that Pond 2 alone will provide the required 40% overall P removal for the 68.86 acre Hilltop Village Center and Recreation Area site.

II. Drainage Outfall

There are two existing drainage outfalls for the 68.86 acre project site.

Outfall No. 1

The majority of the site (65.29 acres) naturally drains to existing Pond 1 which discharges to an engineered drainage channel having a drainage area of approximately 242 acres (minor floodplain). The 242 acres is comprised of the 65.29 site drainage area, as well as an additional 176.71 acres routed through Pond 1, which is more than 90% of the site's 65.29 drainage area and is therefore the point of confluence. This engineered channel was analyzed 150' down stream with three separate cross section to determine no overtopping of the channel occurs, and the 2 year velocity was determined to be non-erosive. See computation sheets for cross sections.

The proposed site design includes construction of a new stormwater management facility (Pond 2) to augment the performance of existing Pond 1. Together these facilities will work in parallel to reduce proposed site runoff for the 2 and 10-year storms to below predevelopment flow rates. Runoff from the majority of the 70 acre project site will be directed to proposed Pond 2 and then into a proposed storm sewer system discharging into the engineered channel downstream of Pond 1, a minor floodplain.

Computations will be provided which demonstrate that the engineered channel and associated roadway culverts between Pond 1 and the major floodplain can adequately convey the combined 2 and 10-year discharges exiting from Ponds 1 and 2. The stream channel within the major floodplain immediately downstream of the confluence with the engineered channel will be evaluated for adequacy to convey the 2-year storm. For the uncontrolled portion of the site directed towards Telegraph Road (U-1) the existing storm sewer system will be evaluated for adequacy to convey the required 10-year design storm. The second portion of the site that is uncontrolled (U-2) will be conveyed to the existing Pond 1 as it does today, and no increase in runoff is expected as the proposed development in that area is vegetated ground cover.

Outfall No.2

The remainder of the site (4 acres identified as U-2) drains to the west into an existing storm sewer system along Telegraph Road. It is proposed that 3 of the 4 acres be diverted to proposed Pond 2 in order that post development flow rates to this outfall are not increased and the existing storm sewer system will have adequate capacity for the 10-year design storm. If this diversion is determined to not be feasible then underground detention will be proposed in this location to attenuate the 2- and 10-year runoff to at or below predevelopment discharge rates such that the existing storm sewer outfall can adequately convey proposed runoff from the project site.

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

The following information is required to be shown or provided in all zoning applications, or a waiver request of the submission requirement with justification shall be attached. Note: Waivers will be acted upon separately. Failure to adequately address the required submission information may result in a delay in processing this application.

This information is required under the following Zoning Ordinance paragraphs:

Special Permits (8-011 2J & 2L)	Special Exceptions (9-011 2J & 2L)
Cluster Subdivision (9-615 1G & 1N)	Commercial Revitalization Districts (9-622 2A (12) & 14))
Development Plans PRC District (16-302 3 & 4L)	PRC Plan (16-303 1E & 1O)
FDP P Districts (except PRC) (16-502 1F & 1Q)	Amendments (18-202 10F & 10I)

☒ 1. Plat is at a minimum scale of 1" = 50' (unless it is depicted on one sheet with a minimum scale of 1" = 100').

☒ 2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheet 6.

☒ 3. Provide:

Facility Name/ Type & No.	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf)	If pond, dam height (ft)
Wet Pond (e.g. dry pond A, infil. trench, underground vault, etc.)	48.91	16.38	65.29	82,764	1,675,932	32.8
Totals	48.91	16.38	65.29	82,764	1,675,932	32.8

☒ 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 6. Pond inlet and outlet pipe systems are shown on Sheet 6.

☒ 5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet 6. Type of maintenance access road surface noted on the plat is 6 (e.g. asphalt, geoblock, gravel, etc.).

☒ 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 6.

☒ 7. A stormwater management narrative which contains a description of how detention and best management practice requirements will be met is provided on Sheet 5.

☒ 8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on Sheet 5.

☒ 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 5.

☒ 10. Existing topography with maximum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets 3,4.

☐ 11. A submission waiver is requested for N/A.

☐ 12. Stormwater management is not required because N/A.

Industry Letter 05-03 dated 02/02/05

Dewberry

Dewberry & Davis LLC

HILLTOP CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL

GENERALIZED DEVELOPMENT PLAN / SPECIAL EXCEPTION AMENDMENT

LEE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE
0' 250' 500'

No.	DATE	BY	Description
3	12.16.08	DMC	No Change this Sheet
2	12.02.08	DMC	Outfall
1	10.17.08		No Change

REVISIONS

DRAWN BY ARW
APPROVED BY
CHECKED BY LH
DATE February 12, 2008

TITLE

Hilltop Construction and Demolition Debris Landfill

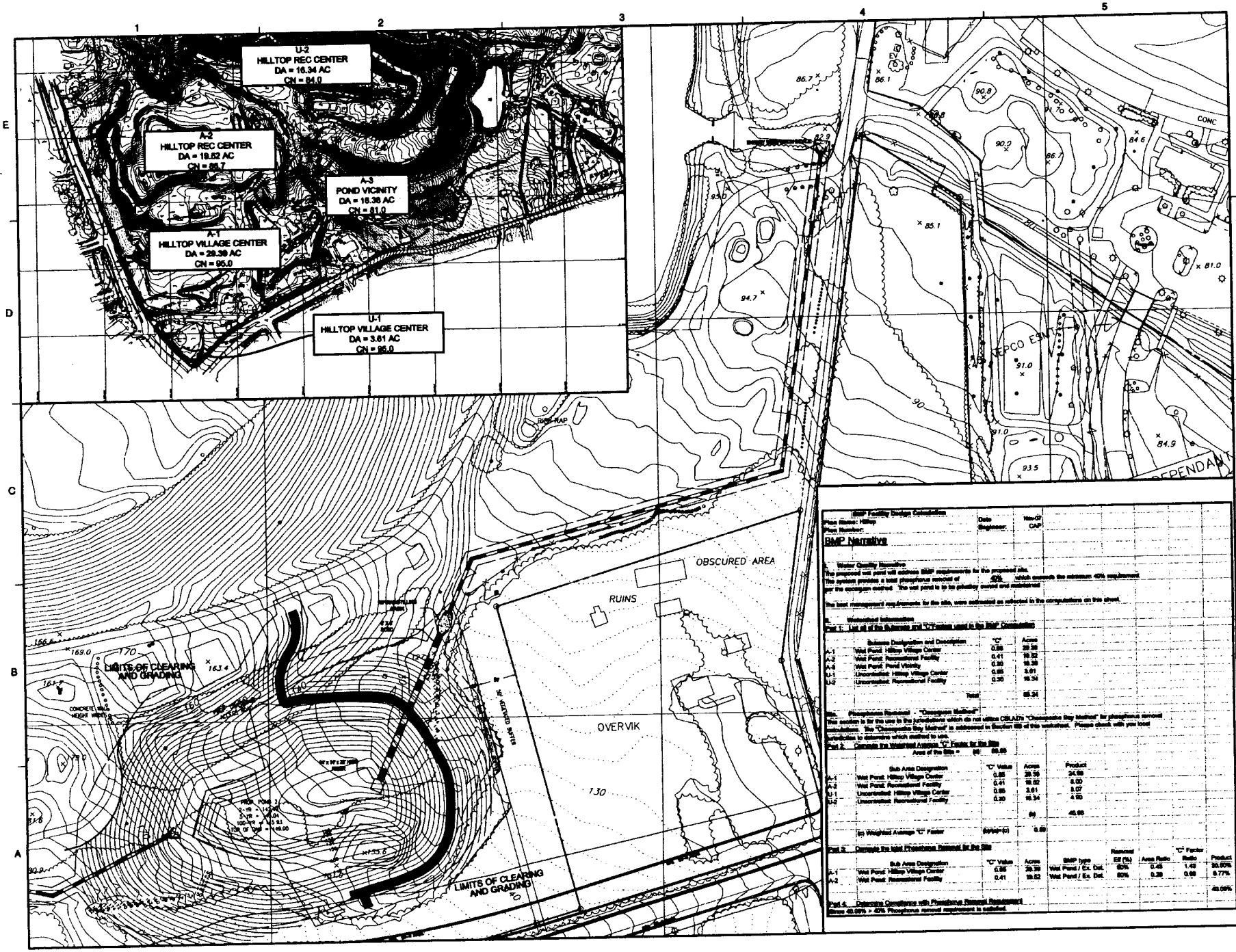
GDP / SEA
Stormwater Outfall Narrative

PROJECT NO.

4

SHEET NO. 4 of 7

M-10694



BMP Facility Design Calculations

Plan Name: Hilltop
Plan Number:
Date:
Engineer: CAP

BMP Narrative

I. Water Quality Narrative

The proposed wet pond will address BMP requirements for the proposed site.
The system provides a total phosphorus removal of 50% which exceeds the minimum 40% requirement.
per the equation method. The wet pond is to be privately owned and maintained.

The load management requirements for the site, were estimated as reflected in the computations on this sheet.

II. Watershed Information

Part 1: List all of the Subareas and "C" Values used in the BMP Computation

	Subarea Designation and Description	"C"	Acres
A-1	Wet Pond: Hilltop Village Center	0.85	29.39
A-2	Wet Pond: Recreational Facility	0.41	19.52
A-3	Wet Pond: Pond Vicinity	0.80	16.38
U-1	Unoriented: Hilltop Village Center	0.85	3.61
U-2	Unoriented: Recreational Facility	0.30	16.34
	Total		85.24

III. Phosphorus Removal - "Chesapeake Method"

This section is for the use in the jurisdictions which do not utilize DSLAD's "Chesapeake Bay Method" for phosphorus removal calculations. The "Chesapeake Bay Method" is addressed in Section III of this worksheet. Please check with your local jurisdiction to determine which method to use.

Part 2: Calculate the Weighted Average "C" Factor for the Site

Area of the Site = (a) 85.69

	Sub Area Designation	"C" Value	Acres	Product
A-1	Wet Pond: Hilltop Village Center	0.85	29.39	24.98
A-2	Wet Pond: Recreational Facility	0.41	19.52	8.00
A-3	Wet Pond: Pond Vicinity	0.80	16.38	13.07
U-1	Unoriented: Hilltop Village Center	0.85	3.61	3.07
U-2	Unoriented: Recreational Facility	0.30	16.34	4.90
			(a)	49.99
	(b) Weighted Average "C" Factor	(b)=(a)÷(c)	0.58	

Part 3: Calculate the total Phosphorus Removal for the Site

	Sub Area Designation	"C" Value	Acres	BMP type	Removal Eff (%)	Area Ratio	"C" Factor Ratio	Product
A-1	Wet Pond: Hilltop Village Center	0.85	29.39	Wet Pond / Ex. Det.	50%	0.49	1.49	36.50%
A-2	Wet Pond: Recreational Facility	0.41	19.52	Wet Pond / Ex. Det.	50%	0.28	0.69	9.77%
								46.09%

Part 4: Determine Compliance with Phosphorus Removal Requirement

Since 46.09% > 40% Phosphorus removal requirement is satisfied.

Dewberry

Dewberry & Davis LLC
8401 ARLINGTON BLVD
FAIRFAX, VA 22031
PHONE: 703-849-0100
FAX: 703-849-0118
www.dewberry.com

HILLTOP CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL

GENERALIZED DEVELOPMENT PLAN / SPECIAL EXCEPTION AMENDMENT

LEE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

COMMONWEALTH OF VIRGINIA
CHARLES CALLISTER
Lic. No. 3812
12-16-08
PROFESSIONAL ENGINEER

KEY PLAN

SCALE

No.	DATE	BY	Description
3	12.16.08	BKC	No Change - Rev. Sheet 1
2	12.02.08	CMC	
1	10.17.08		No Change

REVISIONS

DRAWN BY: ARW
APPROVED BY:
CHECKED BY: LM
DATE: February 12, 2008

TITLE
Hilltop Construction and Demolition Debris Landfi
GDP / SEA
Stormwater Narratives

PROJECT NO.

5

SHEET NO. 5 of 7

M-10694

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1****************************************                    ****************************************
*                                       *                    *                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                    *   U.S. ARMY CORPS OF ENGINEERS       *
*             JUN   1998                *                    *   HYDROLOGIC ENGINEERING CENTER      *
*           VERSION 4.1                 *                    *        609 SECOND STREET             *
*                                       *                    *     DAVIS, CALIFORNIA 95616          *
* RUN DATE   14JAN08  TIME  11:10:43    *                    *         (916) 756-1104               *
*                                       *                    *                                      *
****************************************                     ****************************************


                 X     X  XXXXXXX   XXXXX        X
                 X     X  X        X     X      XX
                 X     X  X        X             X
                 XXXXXXX  XXXX     X     XXXXX   X
                 X     X  X        X             X
                 X     X  X        X     X       X
                 X     X  XXXXXXX   XXXXX       XXX


THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                        HEC-1 INPUT                                          PAGE  1

 LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

           *DIAGRAM
   1       ID  Hilltop Sand & Gravel SWM
   2       ID  Existing Conditions
   3       ID        USING RAINFALL DATA FROM FFX CO PFM AND NRCS TYPE II 24-HR STORM
   4       ID        FILENAME          Existing.IH1
   5       IT        2                     800
   6       IO        5
           *
   7       JR    PREC      3.2      5.2      7.3

   8       KK  PREDEV
   9       KM  Predevelopment Conditions Hydrograph - Open Space in Good Condition
  10       KO                                  21
  11       BA   0.378
  12       IN       6
  13       PC     0.0  .00101  .00202  .00305  .00408  .00513  .00618  .00725  .00832  .00941
  14       PC  .01050  .01161  .01272  .01385  .01498  .01613  .01728  .01845  .01962  .02081
  15       PC    .022  .02321  .02442  .02565  .02688  .02813  .02938  .03065  .03192  .03321
  16       PC  .03450  .03581  .03712  .03845  .03978  .04113  .04248  .04385  .04522  .04661
  17       PC    .048  .04941  .05084  .05229  .05376  .05525  .05676  .05829  .05984  .06141
  18       PC    .063  .06461  .06624  .06789  .06956  .07125  .07296  .07469  .07644  .07821
  19       PC     .08  .08181  .08364  .08549  .08736  .08925  .09116  .09309  .09504  .09701
  20       PC    .099  .10101  .10304  .10509  .10716  .10925  .11136  .11349  .11564  .11781
  21       PC     .12  .12225  .12460  .12705  .12960  .13225    .135  .13785  .14080  .14385
  22       PC    .147   .1502  .15340   .1566   .1598    .163  .16628  .16972  .17332  .17708
  23       PC    .181  .18512  .18948  .19408  .19892    .204   .2094   .2152   .2214    .228
  24       PC    .235  .24268  .25132  .26092  .27148    .283  .30684  .35436  .43079  .56786
  25       PC    .663  .68196  .69864  .71304  .72516    .735  .74344  .75136  .75876  .76564
  26       PC    .772  .77796  .78364  .78904  .79416    .799   .8036    .808   .8122   .8162
  27       PC     .82  .82367  .82726  .83079  .83424  .83763  .84094  .84419  .84736  .85047
  28       PC  .85350  .85647  .85936  .86219  .86494  .86763  .87024  .87279  .87526  .87767
  29       PC     .88  .88229  .88455  .88679    .889  .89119  .89335  .89549   .8976  .89969
  30       PC  .90175  .90379   .9058  .90779  .90975  .91169   .9136  .91549  .91735  .91919
  31       PC    .921  .92279  .92455  .92629    .928  .92969  .93135  .93299   .9346  .93619
  32       PC  .93775  .93929   .9408  .94229  .94375  .94519   .9466  .94799  .94935  .95069
  33       PC    .952   .9533  .95459  .95588  .95716  .95844  .95971  .96098  .96224   .9635
  34       PC  .96475    .966  .96724  .96848  .96971  .97094  .97216  .97338  .97459   .9758
  35       PC    .977   .9782  .97939  .98058  .98176  .98294  .98411  .98528  .98644  .98760
  36       PC  .98875   .9899  .99104  .99218  .99331  .99444  .99556  .99668  .99779   .9989
  37       PC     1.0
  38       LS              79
  39       UD   0.372
           *

  40       KK  INFLOW
  41       KM  Existing Conditions Inflow to Existing SWM Pond 1 (without Prop Hilltop Villag
  42       KO                                  21
  43       BA   0.378
  44       LS           84.17
  45       UD   0.288
           *
1                                        HEC-1 INPUT                                          PAGE  2

 LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  46       KK  EXSWM1
  47       KM  Route Through Existing SWM Pond 1 With Existing 12.5' Weir
  48       KO                                  21
  49       RS       1    STOR       0
  50       SV       0    1.34     4.7    8.59   12.79   17.34   18.52
  51       SE      85      86      88      90      92      94    94.5
  52       SQ       0   13.26    37.5   68.89  106.07  148.23  194.86  245.55     300  357.97
  53       SQ  419.26   483.7  551.14  647.96  769.51  908.02 1060.66 1225.77 1402.21 1589.13
  54       SE      85    85.5      86    86.5      87    87.5      88    88.5      89    89.5
  55       SE      90    90.5      91    91.5      92    92.5      93    93.5      94    94.5
  56       ZZ
1
            SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE     (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.     (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    8      PREDEV
              .
              .
   40         .        INFLOW
              .             V
              .             V
   46         .        EXSWM1

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************                    ****************************************
*                                       *                    *                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                    *   U.S. ARMY CORPS OF ENGINEERS       *
*             JUN   1998                *                    *   HYDROLOGIC ENGINEERING CENTER      *
*           VERSION 4.1                 *                    *        609 SECOND STREET             *
*                                       *                    *     DAVIS, CALIFORNIA 95616          *
* RUN DATE   14JAN08  TIME  11:10:43    *                    *         (916) 756-1104               *
*                                       *                    *                                      *
****************************************                     ****************************************
*
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                     Hilltop Sand & Gravel SWM
                     Existing Conditions
                           USING RAINFALL DATA FROM FFX CO PFM AND NRCS TYPE II 24-HR STORM
                           FILENAME        Existing.IH1

  6 IO        OUTPUT CONTROL VARIABLES
                    IPRNT          5  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE

    IT        HYDROGRAPH TIME DATA
                     NMIN          2  MINUTES IN COMPUTATION INTERVAL
                    IDATE     1    0  STARTING DATE
                    ITIME       0000  STARTING TIME
                       NQ        800  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE     2    0  ENDING DATE
                   NDTIME       0238  ENDING TIME
                    ICENT         19  CENTURY MARK

               COMPUTATION INTERVAL     .03 HOURS
                    TOTAL TIME BASE   26.63 HOURS

          ENGLISH UNITS
                DRAINAGE AREA            SQUARE MILES
                PRECIPITATION DEPTH      INCHES
                LENGTH, ELEVATION        FEET
                FLOW                     CUBIC FEET PER SECOND
                STORAGE VOLUME           ACRE-FEET
                SURFACE AREA             ACRES
                TEMPERATURE              DEGREES FAHRENHEIT

    JP        MULTI-PLAN OPTION
                    NPLAN          1  NUMBER OF PLANS

    JR        MULTI-RATIO OPTION
                 RATIOS OF PRECIPITATION
                  3.20      5.20      7.30

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

             **************
             *            *
  8 KK       *   PREDEV   *
             *            *
             **************

 10 KO        OUTPUT CONTROL VARIABLES
                    IPRNT          5  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE
                    IPNCH          0  PUNCH COMPUTED HYDROGRAPH
                     IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2        800  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT       .033  TIME INTERVAL IN HOURS

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

             **************
             *            *
 40 KK       *   INFLOW   *
             *            *
             **************

 42 KO        OUTPUT CONTROL VARIABLES
                    IPRNT          5  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE
                    IPNCH          0  PUNCH COMPUTED HYDROGRAPH
                     IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2        800  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT       .033  TIME INTERVAL IN HOURS

*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

             **************
             *            *
 46 KK       *   EXSWM1   *
             *            *
             **************

 48 KO        OUTPUT CONTROL VARIABLES
                    IPRNT          5  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
                    QSCAL         0.  HYDROGRAPH PLOT SCALE
                    IPNCH          0  PUNCH COMPUTED HYDROGRAPH
                     IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                    ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                    ISAV2        800  LAST ORDINATE PUNCHED OR SAVED
                   TIMINT       .033  TIME INTERVAL IN HOURS

1
         PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
                       FLOWS IN CUBIC FEET PER SECOND,  AREA IN SQUARE MILES
                                     TIME TO PEAK IN HOURS

                                                   RATIOS APPLIED TO PRECIPITATION
                                                 2-YEAR:   10-YEAR:  100-YR:
OPERATION       STATION     AREA   PLAN          RATIO 1   RATIO 2   RATIO 3
                                                   3.20      5.20      7.30

HYDROGRAPH AT
+               PREDEV       .38     1   FLOW      244.      557.      909.
                                         TIME     12.27     12.27     12.23

HYDROGRAPH AT
+               INFLOW       .38     1   FLOW      370.      755.     1169.
                                         TIME     12.17     12.17     12.17

ROUTED TO
+               EXSWM1       .38     1   FLOW      274.      604.     1038.
                                         TIME     12.33     12.30     12.27

                                     ** PEAK STAGES IN FEET **
                                     1   STAGE     88.76     91.27     92.93
                                         TIME     12.33     12.30     12.27
```

Dewberry

Dewberry & Davis LLC

HILLTOP CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL

GENERALIZED DEVELOPMENT PLAN / SPECIAL EXCEPTION AMENDMENT

LEE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL

KEY PLAN

SCALE

No.	DATE	BY	Description
3	12.16.08	DMC	No Change-This Sheet
2	12.02.08	DMC	
1	10.17.08	–	No Change

REVISIONS

DRAWN BY ARW

APPROVED BY

CHECKED BY LM

DATE February 12, 2008

TITLE

Hilltop Construction and Demolition Debris Landfill

GDP / SEA
Stormwater Management

PROJECT NO.

6

SHEET NO. 6 OF 7

M-10694

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1****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*            JUN   1998                 *
*          VERSION 4.1                  *
*                                       *
*  RUN DATE   27JAN08  TIME  11:59:31   *
*                                       *
*****************************************

*****************************************
*                                       *
*     U.S. ARMY CORPS OF ENGINEERS      *
*   HYDROLOGIC ENGINEERING CENTER       *
*         609 SECOND STREET             *
*      DAVIS, CALIFORNIA 95616          *
*           (916) 756-1104              *
*                                       *
*****************************************

    X     X  XXXXXXX   XXXXX           X
    X     X  X        X     X         XX
    X     X  X        X                X
    XXXXXXX  XXXX     X         XXXXX  X
    X     X  X        X                X
    X     X  X        X     X          X
    X     X  XXXXXXX   XXXXX          XXX

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

1                                         HEC-1 INPUT                                              PAGE  1

 LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

           *DIAGRAM
   1       ID        HILLTOP VILLAGE CENTER AND RECREATIONAL CENTRE
   2       ID        PROPOSED CONDITIONS
   3       ID        USING RAINFALL DATA FROM FFX PFM AND NRCS TYPE II 24-HR STORM
   4       ID        FILENAME: Prop_Rev.ihl
   5       IT        2                 800
   6       IO        5
           *
   7       JR     PREC     3.2     5.2     7.3   10.95   18.25    8.35

   8       KK  BASIN1
   9       KM  Inflow to Existing SWM Pond 1
  10       KO                                   21
  11       BA   0.281
  12       IN       6
  13       PC     0.0  .00101  .00202  .00305  .00408  .00513  .00618  .00725  .00832  .00941
  14       PC  .01050  .01161  .01272  .01385  .01498  .01613  .01728  .01845  .01962  .02081
  15       PC    .022  .02321  .02442  .02565  .02688  .02813  .02938  .03065  .03192  .03321
  16       PC  .03450  .03581  .03712  .03845  .03978  .04113  .04248  .04385  .04522  .04661
  17       PC    .048  .04941  .05084  .05229  .05376  .05525  .05676  .05829  .05984  .06141
  18       PC    .063  .06461  .06624  .06789  .06956  .07125  .07296  .07469  .07644  .07821
  19       PC     .08  .08181  .08364  .08549  .08736  .08925  .09116  .09309  .09504  .09701
  20       PC    .099  .10101  .10304  .10509  .10716  .10925  .11136  .11349  .11564  .11781
  21       PC     .12  .12225  .12460  .12705  .12960  .13225    .135  .13785  .14080  .14385
  22       PC    .147   .1502  .15340   .1566   .1598    .163  .16628  .16972  .17332  .17708
  23       PC    .181  .18512  .18948  .19408  .19892    .204   .2094   .2152   .2214    .228
  24       PC    .235  .24268  .25132  .26092  .27148    .283  .30684  .35436  .43079  .56786
  25       PC    .663  .68196  .69864  .71304  .72516    .735  .74344  .75136  .75876  .76564
  26       PC    .772  .77796  .78364  .78904  .79416    .799   .8036    .808   .8122   .8162
  27       PC     .82  .82367  .82726  .83079  .83424  .83763  .84094  .84419  .84736  .85047
  28       PC  .85350  .85647  .85936  .86219  .86494  .86763  .87024  .87279  .87526  .87767
  29       PC     .88  .88229  .88455  .88679    .889  .89119  .89335  .89549   .8976  .89969
  30       PC  .90175  .90379   .9058  .90779  .90975  .91169   .9136  .91549  .91735  .91919
  31       PC    .921  .92279  .92455  .92629    .928  .92969  .93135  .93299   .9346  .93619
  32       PC  .93775  .93929   .9408  .94229  .94375  .94519   .9466  .94799  .94935  .95069
  33       PC    .952   .9533  .95459  .95588  .95716  .95844  .95971  .96098  .96224   .9635
  34       PC  .96475    .966  .96724  .96848  .96971  .97094  .97216  .97338  .97459   .9758
  35       PC    .977   .9782  .97939  .98058  .98176  .98294  .98411  .98528  .98644  .98760
  36       PC  .98875   .9899  .99104  .99218  .99331  .99444  .99556  .99668  .99779   .9989
  37       PC     1.0
  38       LS            84.17
  39       UD   0.288

  40       KK  EXSWM1          1
  41       KM  Route Through Existing SWM Pond 1 With Existing 12.5' Weir
  42       KO                                   21
  43       RS       1    STOR       0
  44       SV       0    1.34     4.7    8.59   12.79   17.34   18.52
  45       SE      85      86      88      90      92      94    94.5
  46       SQ       0   13.26    37.5   68.89  106.07  148.23  194.86  245.55     300  357.97
  47       SQ  419.26   483.7  551.14  647.96  769.51  908.02 1060.66 1225.77 1402.21 1589.13
  48       SE      85    85.5      86    86.5      87    87.5      88    88.5      89    89.5
  49       SE      90    90.5      91    91.5      92    92.5      93    93.5      94    94.5
1                                         HEC-1 INPUT                                              PAGE  2

 LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  50       KK  BASIN2
  51       KM  Inflow to Proposed SWM Pond 2
  52       KO                                   21
  53       BA   0.101
  54       LS               90
  55       UD    0.15

  56       KK  PRSWM2
  57       KM  Route Through Proposed SWM Pond 2
  58       KO                                   21
  59       RS       1    ELEV     142
  60       SA    0.07    0.16    0.38    0.48    0.57    0.67    0.76    0.98    1.22    1.34
  61       SA    1.47    1.61    1.75     1.9
  62       SE     128     130     132     134     136     138     140     142     144     146
  63       SE     148     150     152     154
  64       SL     142     4.5     0.6     0.5
  65       SS   147.5      56       3     1.5
  66       ST     152     500     2.6     1.5

  67       KK  COMB12
  68       KM  Combine Outflow From SWM Ponds 1 and 2
  69       KO                                   21
  70       HC       2
           *
  71       ZZ
1
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PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
                FLOWS IN CUBIC FEET PER SECOND,  AREA IN SQUARE MILES
                               TIME TO PEAK IN HOURS

                                                  RATIOS APPLIED TO PRECIPITATION

                                                                          FBH        SDF       NOAA
                                             2-YEAR:  10-YEAR:  100-YR:  1.5x100   2.5x100   ATLAS 14

 OPERATION      STATION     AREA   PLAN          RATIO 1  RATIO 2  RATIO 3  RATIO 4  RATIO 5  RATIO 6
                                                    3.20     5.20     7.30    10.95    18.25     8.35

 HYDROGRAPH AT
+               BASIN1       .28     1   FLOW      275.     562.     869.    1401.    2448.    1022.
                                         TIME     12.17    12.17    12.17    12.17    12.17    12.17

 ROUTED TO
+               EXSWM1       .28     1   FLOW      200.     433.     727.    1276.    2299.     889.
                                         TIME     12.33    12.33    12.30    12.23    12.23    12.27

                                    ** PEAK STAGES IN FEET **
                                     1   STAGE     88.05    90.11    91.82    93.64    96.40    92.43
                                         TIME     12.33    12.33    12.30    12.23    12.23    12.27

 HYDROGRAPH AT
+               BASIN2       .10     1   FLOW      169.     308.     452.     700.    1189.     524.
                                         TIME     12.03    12.03    12.03    12.03    12.03    12.03

 ROUTED TO
+               PRSWM2       .10     1   FLOW       40.     120.     343.     644.    1140.     437.
                                         TIME     12.37    12.27    12.13    12.10    12.07    12.10

                                    ** PEAK STAGES IN FEET **
                                     1   STAGE    145.43   148.04   148.93   149.79   150.95   149.22
                                         TIME     12.37    12.27    12.13    12.10    12.07    12.10

  2 COMBINED AT
+               COMB12       .38     1   FLOW      240.     547.     967.    1723.    3125.    1190.
                                         TIME     12.33    12.30    12.23    12.20    12.17    12.20
1                   SUMMARY OF DAM OVERTOPPING/BREACH ANALYSIS FOR STATION    PRSWM2
                    (PEAKS SHOWN ARE FOR INTERNAL TIME STEP USED  DURING BREACH FORMATION)

 PLAN  1 ...............          INITIAL VALUE     SPILLWAY CREST     TOP OF DAM
                      ELEVATION       142.00            147.50           152.00
                      STORAGE            7.               14.              21.
                      OUTFLOW            0.               51.            1672.

      RATIO     MAXIMUM     MAXIMUM    MAXIMUM    MAXIMUM    DURATION     TIME OF      TIME OF
        OF     RESERVOIR     DEPTH     STORAGE    OUTFLOW    OVER TOP   MAX OUTFLOW   FAILURE
       PMF      W.S.ELEV   OVER DAM     AC-FT       CFS        HOURS       HOURS        HOURS

       3.20      145.43       .00         11.        40.        .00        12.37         .00
       5.20      148.04       .00         15.       120.        .00        12.27         .00
       7.30      148.93       .00         16.       343.        .00        12.13         .00
      10.95      149.79       .00         17.       644.        .00        12.10         .00
      18.25      150.95       .00         19.      1140.        .00        12.07         .00
       8.35      149.22       .00         16.       437.        .00        12.10         .00

*** NORMAL END OF HEC-1 ***
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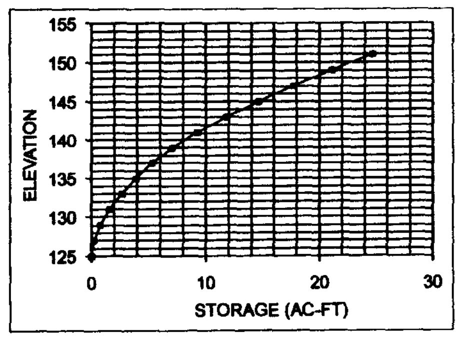
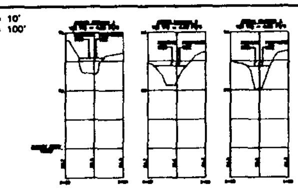
NOTE: A DATUM SHIFT IN THE POND ELEVATION OCCURRED, WHICH REQUIRES THE ELEVATIONS IN THE COMPUTATIONS TO BE REDUCED BY 3 FEET. THE SHAPE OF THE POND HAS BEEN MAINTAINED AND THE STAGE STORAGE CURVE HAS BEEN UPDATED.

STAGE STORAGE CURVE FOR PROPOSED POND 2



STAGE VS. STORAGE USING CONIC METHOD			
PROJECT:	Hilltop Village Center		
ENGINEER / DATE:		GLC / 1-28-08	
ELEVATION (FEET)	AREA (ACRES)	INCREMENTAL VOLUME (ACRE-FEET)	TOTAL VOLUME (ACRE-FEET)
125	0.07		0.0000
127	0.16	0.2230	0.2230
129	0.38	0.5244	0.7463
131	0.48	0.8601	1.6063
133	0.57	1.0487	2.6550
135	0.67	1.2387	3.8937
137	0.76	1.4291	5.3227
139	0.98	1.7363	7.0581
141	1.22	2.1956	9.2537
143	1.34	2.5591	11.8128
145	1.47	2.8090	14.6218
147	1.61	3.0789	17.7007
149	1.75	3.3580	21.0587
151	1.9	3.6400	24.7087

V: SCALE 1" = 10'
H: SCALE 1" = 100'



AS SHOWN ON THE OUTFALL NARRATIVE SHEET, THE POINT OF CONFLUENCE REPRESENTS THE POINT AT WHICH POND 2 DRAINAGE AREA (85.29 AC) IS COMBINED WITH A DRAINAGE AREA GREATER THAN 90% (178.71 AC). IT IS OF THE OPINION OF THE ENGINEER THAT THE OUTFALL IS ADEQUATE DUE TO THE FACT THAT THE RECEIVING CHANNEL HAS CAPACITY TO CONVEY THE 10 YEAR STORM FLOW WITHIN ITS BANKS AT NON-EROSIVE VELOCITIES FOR THE RIP-RAP LINED CHANNEL. THE FLOW VALUES WERE COMPUTED IN THE HEC MODEL ABOVE. THE CHANNEL IS STABLE AND HEAVILY VEGETATED AS WELL AS HEAVILY COVERED IN RIP-RAP

Dewberry

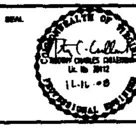
Dewberry & Davis LLC

HILLTOP CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL

GENERALIZED DEVELOPMENT PLAN / SPECIAL EXCEPTION AMENDMENT

LEE DISTRICT
FAIRFAX COUNTY, VIRGINIA

SEAL



KEY PLAN

SCALE

No.	DATE	BY	Description
3	12.16.08	DMC	No Change-This Sheet
2	12.02.08	DMC	Outfall X-Sect
1	10.17.08		No Change

REVISIONS

DRAWN BY ARW
APPROVED BY
CHECKED BY LM
DATE February 12, 2008

TITLE

Hilltop Construction and Demolition Debris Landfill

GDP / SEA Stormwater Management

PROJECT NO.

7

SHEET NO. 7 OF 7

M-10694