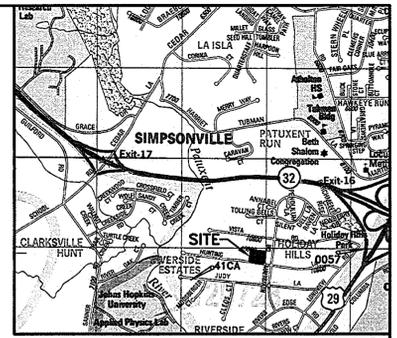
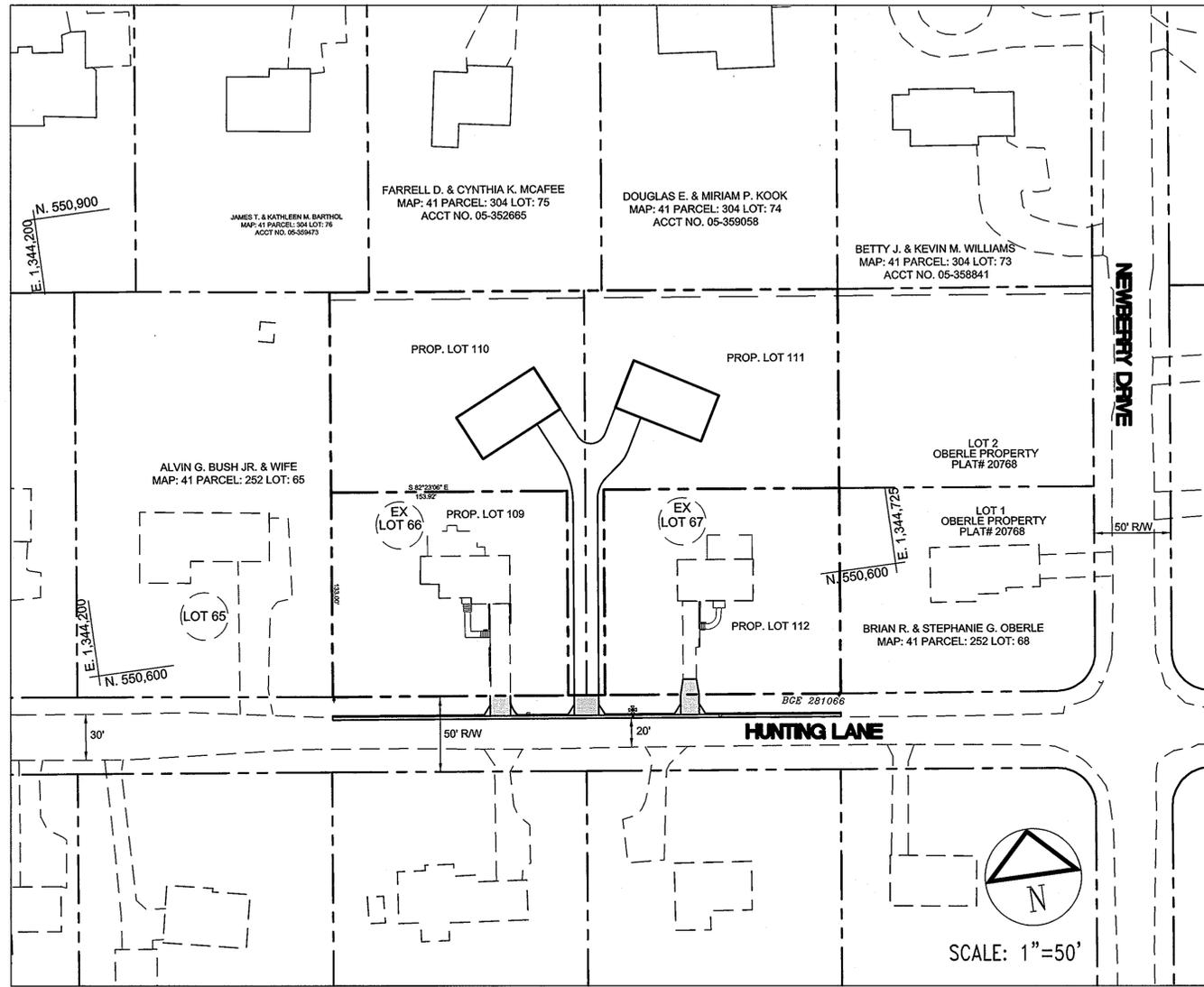


GENERAL NOTES

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-251-7777 at least 48 hours prior to any excavation work being done.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- The existing topography is taken from field run survey with maximum two foot contour intervals prepared by Shanabarger & Lane 10/22/10.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System. Howard County Monument Nos. 0057 and 41 CA were used for this project.
- Water & Sewer is public. Contract No. 34-345TD & 34-4350.
- Site is located within the metropolitan district.
- Stormwater Management for this site is provided by rooftop and non-rooftop disconnection pervious concrete paving and rain gardens ECF II-055. Privately maintained.
- Existing utilities are based on plans of record, field run topography.
- There is no floodplain on this site.
- There are no wetlands or streams on this site based on site inspection by Exploration Research, Inc. dated 10-11-10.
- The speed study for this project was prepared by the Mildenberg Boender & Associates Inc., dated June 2010.
- This Plan complies with the requirements of Section 16.1200 of the Howard County Code for Forest Conservation by payment of a fee in lieu of \$4,801 (0.3 x .75 x 49560).
- The contractor shall test pit existing utilities at least five (5) days before starting work shown on these drawings to verify their location and elevation. The contractor shall notify the engineer immediately if location of utilities is other than shown.
- Any damage caused by the contractor to existing public right-of-way, existing paving, existing curbs, and gutter, existing utilities, etc. shall be repaired at the Contractor's expense.
- All hydraulic data is for the 10-year storm unless otherwise noted.
- All fill areas shall be compacted to a minimum of 95% of the maximum dry density as determined and verified in accordance with AASHTO T-99.
- All plan dimensions are to face-of-curb unless otherwise noted. Numerically written dimensions take precedence over scale dimensions.
- There are no known cemeteries, burial grounds or historic sites and structures on this site.
- No grading, removal of vegetation cover of trees, paving and new structures shall be permitted within the required wetlands, streams, or their buffers, forest conservation easement areas and 100 year floodplain.
- Existing structures on lots 109 & 112 shall remain. (Existing Lots 66 & 67.)
- Financial Surety for the required perimeter landscaping in the amount of \$2,400 is part of the developers agreement.
- All sign posts used for traffic control signs installed in the County right-of-way shall be mounted on a 2" galvanized steel, perforated, square tube post (14 gauge) inserted into a 2-1/2" galvanized steel perforated, square tube sleeve (12 gauge) - 3' long. A galvanized steel pole cap shall be mounted on top of each post.
- The landscape plan has been prepared in accordance with Section 16.124 of the Howard County Code and the Howard County Landscape Manual. Landscaping for lots 109 & 112 is provided in accordance with a certified landscape plan as part of the construction drawings in accordance with section 16.124 of the Howard County Code and the landscape manual. Landscape surety in the amount of \$2400.00 (to shade trees & evergreen trees) will be posted with the developer agreement.
- Signage at the street identifying the address is required.
- Trash and recycling collection will be at Hunting Lane within 5 FT of the County roadway.
- An open space requirements for lots 110 & 111 have been satisfied via the payment of a fee-in-lieu in the amount of \$3,000 paid to account #4030040008-1 300-422000.
- See previous DPZ Files ECF II-055, WF II-162.
- Waivers are being requested for the following sections of the Subdivisions and Land Development Regulations WF-II-162. Approved subject to conditions 5/19/11.
 Section 16.132 - requiring construction of roads fronting the proposed subdivision to current standards. Developer shall construct a 12' half section with bituminous curb.
 Section 16.134 - requiring construction of sidewalks along road frontage. Approved subject to payment of fee-in-lieu.
 Section 16.135 - requiring construction of street lighting in accordance with the design manual. - Approved.
 Section 16.1205a(1) - requiring retention of trees 30" or greater. Approved to remove 5 trees and replace with 5 shade trees.
 Section 16.1205a(10) - requiring retention of specimen trees. Approved to remove 5 trees.
- Existing fire hydrant and water and sewer connections shall be done as an Advanced Deposit Order.
- The property is zoned R-20 per the 2/2/2004 comprehensive zoning plan and the Comp Lite Zoning Amendments dated 7/28/2006.
- Driveway(s) shall be provided prior to residential occupancy to ensure safe access for fire and emergency vehicles per the following:
 1) width - 12 feet (16 feet if serving more than 1 residence)
 2) surface - six (6) inches of compacted "crusher run" base with tar and chip coating
 3) geometry - max. 15% grade, max 10% grade change and minimum 45' turning radius
 4) structures (culverts/bridges) - capable of supporting 25 gross tons (25 loading)
 5) drainage elements - capable of safely passing 100-year flood with no more than 1-foot depth over driveway surface.
 6) maintenance - sufficient to ensure all weather use.
- For flag or pipestem lots, refuse collection, snow removal, and road maintenance are provided to the junction of the flag or pipestem and road right-of-way line and not onto the pipestem lot driveway.
- Pre Submission Community Meeting was held 2/16/11.
- There are no steep slopes on site.
- A fee-in-lieu for road frontage improvements for Hunting Lane in the amount of \$6,200 has been paid to account number WBS K0015.0.3100.



Vicinity Map - Scale: 1" = 2000'
 ADC Map People - Permitted Use # 20612205

BENCHMARKS
 COORDINATES BASED ON NAD 83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATION NOS. 0057 & 41CA.
 0057
 NORTHING: 550835.2057
 EASTING: 1347017.6516
 ELEVATION: 395.864
 41CA
 NORTHING: 550124.8331
 EASTING: 1342860.9189
 ELEVATION: 285.328

SHEET INDEX

SHEET	DESCRIPTION
1	Cover Sheet
2	Road Plan
3	Sediment & Erosion Control Plan & Details
4	Landscaping Plan & Details
5	FSD / FCP Plan

APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 6-7-12
 Chief, Bureau of Highways Date

APPROVED: DEPARTMENT OF Planning & Zoning
 [Signature] 6/15/12
 Chief, Division of Land Development Date

[Signature] 6/14/12
 Chief, Development Engineering Division Date

Cover Sheet

for

HOLIDAY HILLS SECTION 4

Howard County, Maryland

LOTS 109-112

CONTACT
 Jeffrey L. Schnab
 Tesseract Sites, Inc.
 401 Washington Ave, Suite 303
 Towson MD, 21204

OWNER
 Mr. Dao Lee
 10717 Hunting Lane
 Columbia, MD 21044
 ph: 410-242-8007

Tesseract
 TESSERACT SITES, INC.
 401 Washington Ave, Suite 303 p. 410.321.7600
 Towson, Maryland 21204 F. 410.321.7601

Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 14230, Expiration Date: 12/09/12.

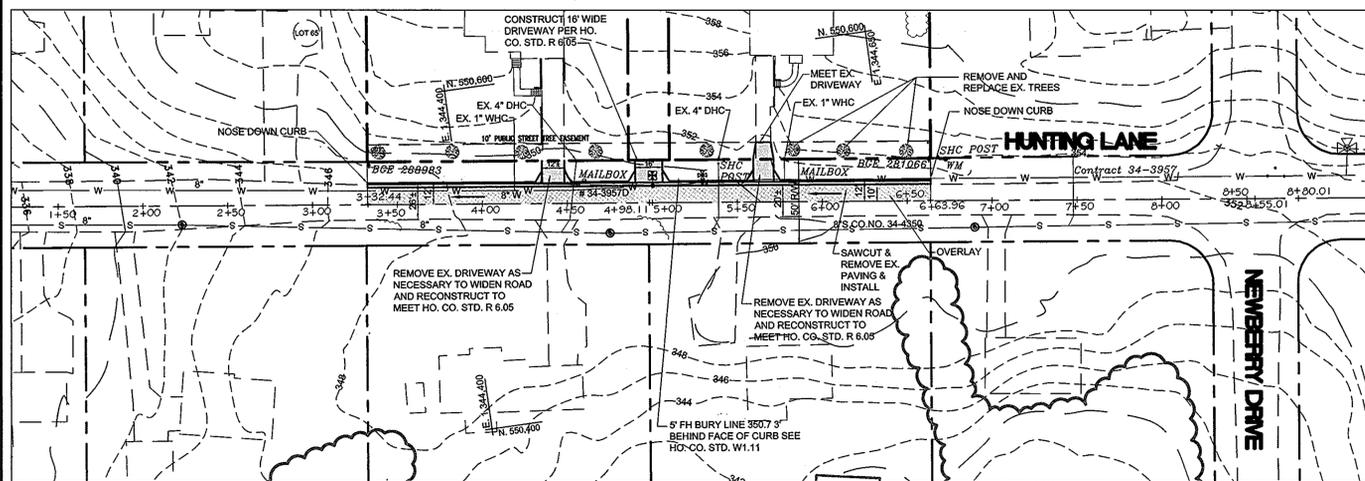
Holiday Hills Section 4
 Lots 109-112
 A Resubdivision of Holiday Hills,
 Section 4, Lot 66 & 67, ECP 11-055

COVER SHEET

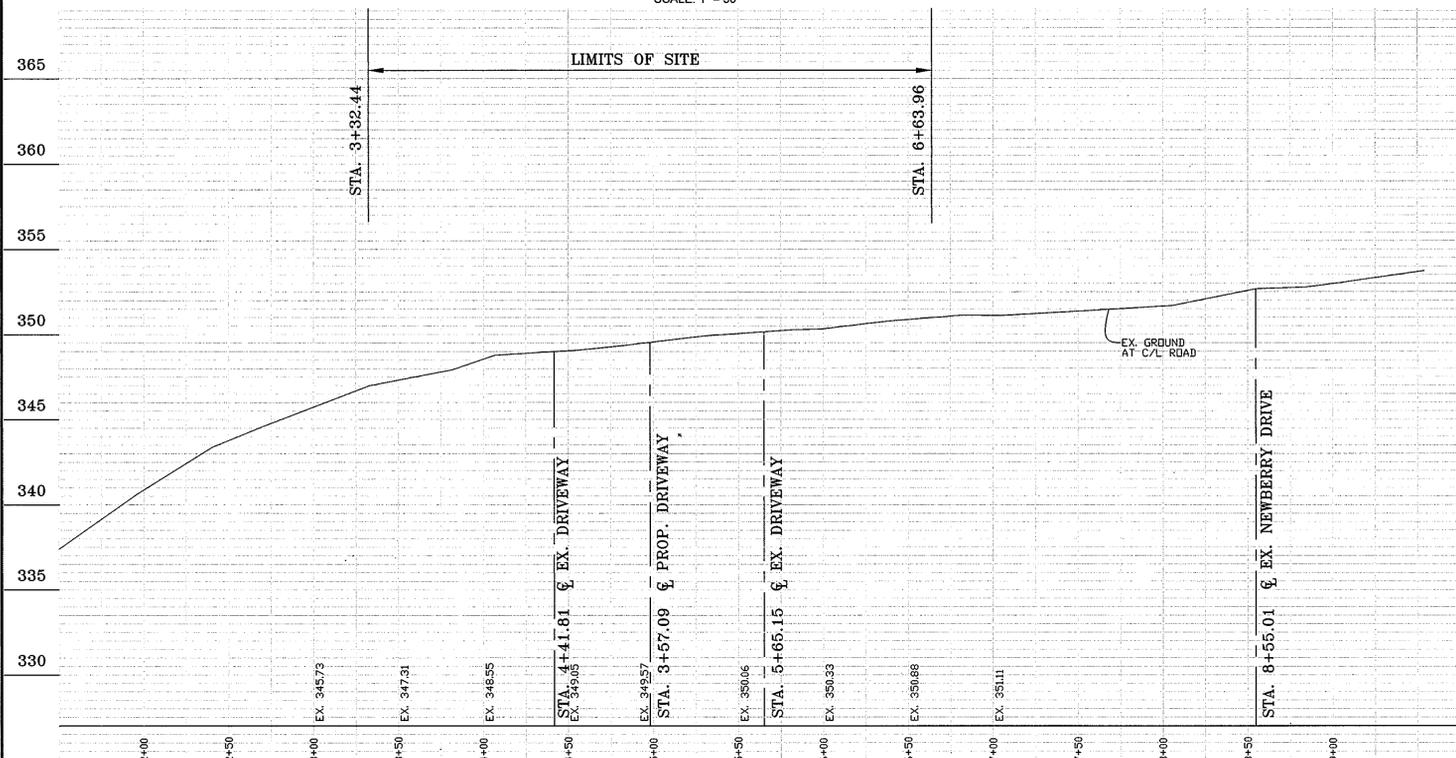
SECTION NAME: Holiday Hills	SECTION AREA: 4	LOT/PARCEL: 103-108
PLAN OR L.P. 68	ZONE R-20	DATE/REVISION: 41
DATE: 6/8/12	DATE: 5/11/12	DATE: 5/11/12
DATE: 6/14/12	DATE: 6/14/12	DATE: 6/14/12

Date: 5/2/2012
 Proj. #: 10022
 Scale: 1"=50'

1 of 5

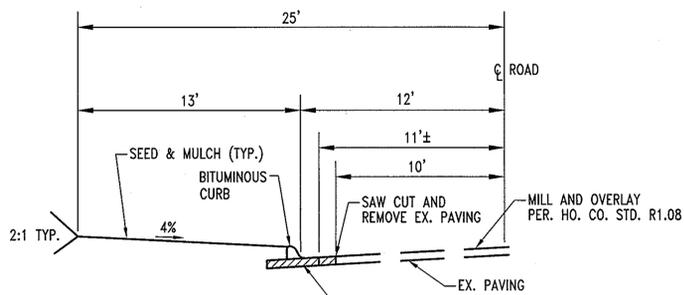


ROAD PLAN
SCALE: 1" = 50'



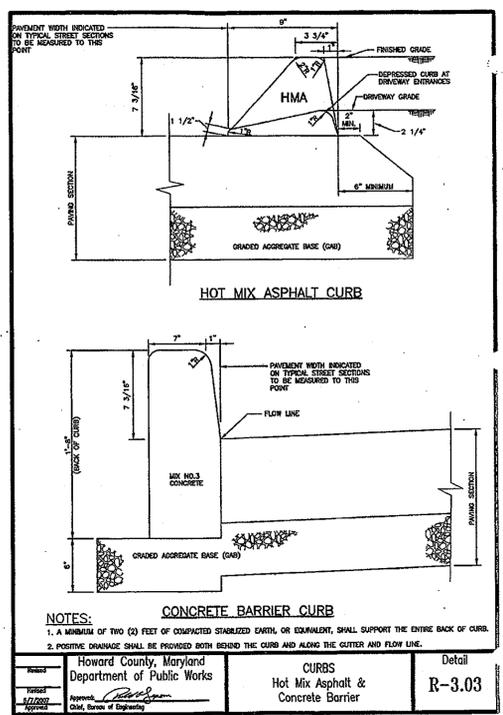
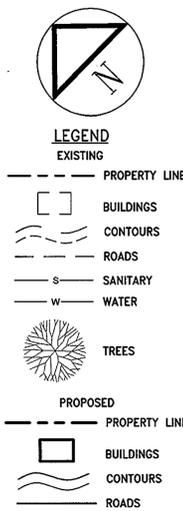
HUNTING LANE PROFILE
SCALE: HORIZ. 1" = 50'
VERT. 1" = 5'

COUNTY ROAD
ACCESS STREET
ZONING = R-20
DESIGN SPEED 25 MPH

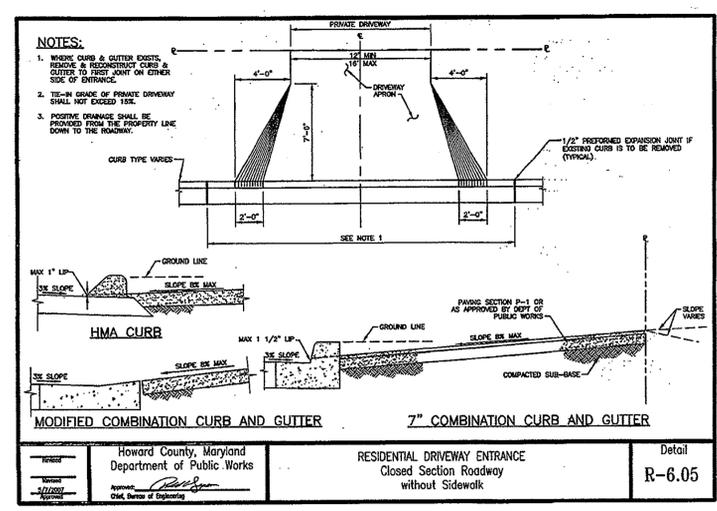


TYPICAL HALF SECTION HUNTING LANE

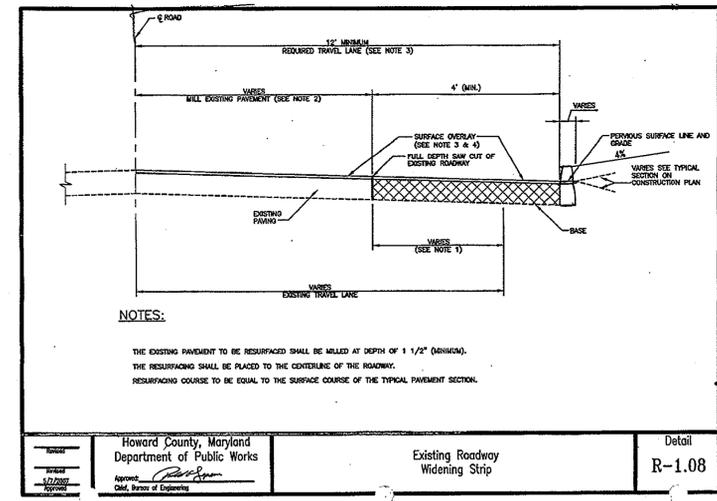
STA. 3+32.44 TO 6+63.96
ZONED R-20
DESIGN SPEED 25 MPH ACCESS STREET



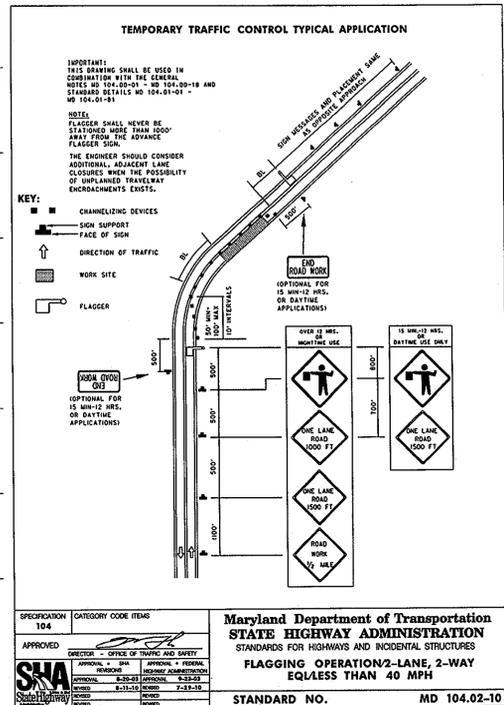
DETAIL R-3.03
CURBS
Hot Mix Asphalt & Concrete Barrier



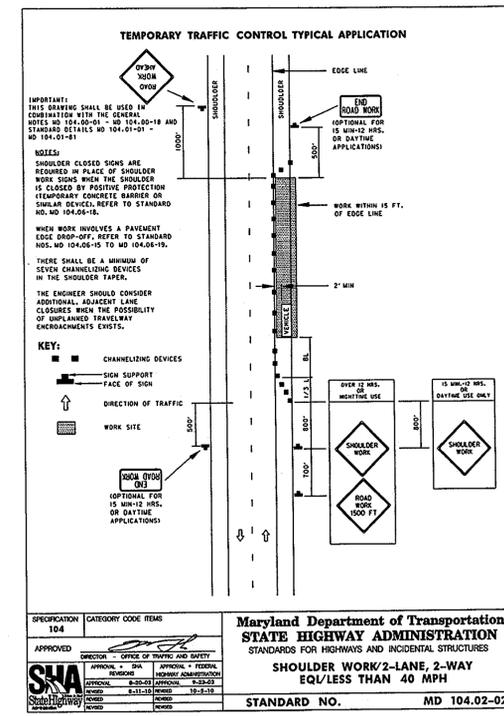
DETAIL R-6.05
RESIDENTIAL DRIVEWAY ENTRANCE
Closed Section Roadway
without Sidewalk



DETAIL R-1.08
Existing Roadway
Widening Strip



Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
FLAGGING OPERATION-2-LANE, 2-WAY
EQL/LESS THAN 40 MPH
STANDARD NO. MD 104.02-10



Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
SHOULDER WORK/2-LANE, 2-WAY
EQL/LESS THAN 40 MPH
STANDARD NO. MD 104.02-02

APPROVED: DEPARTMENT OF PUBLIC WORKS
[Signature] 6-7-12
Chief, Bureau of Highways
APPROVED: DEPARTMENT OF Planning & Zoning
[Signature] 6/15/12
Chief, Division of Land Development
[Signature] 6/14/12
Chief, Development Engineering Division

(B) Paving Section (P-2)
NOT TO SCALE

CONTACT
Jeffrey L. Schnab
Tesseract Sites, Inc.
401 Washington Ave, Suite 303
Towson MD, 21204

OWNER
Mr. Dae Lee
10717 Hunting Lane
Columbia, MD 21044
ph: 410-242-8007

NOTE: DESIGN AND DRAWING BASED ON THE MARYLAND COORDINATE SYSTEM HORIZONTAL - NAD 83/91, VERTICAL - NAVD 88

Tesseract
Tesseract Sites, Inc.
401 Washington Ave, Suite 303
Towson, Maryland, 21204
p. 410.321.7600
f. 410.321.7601

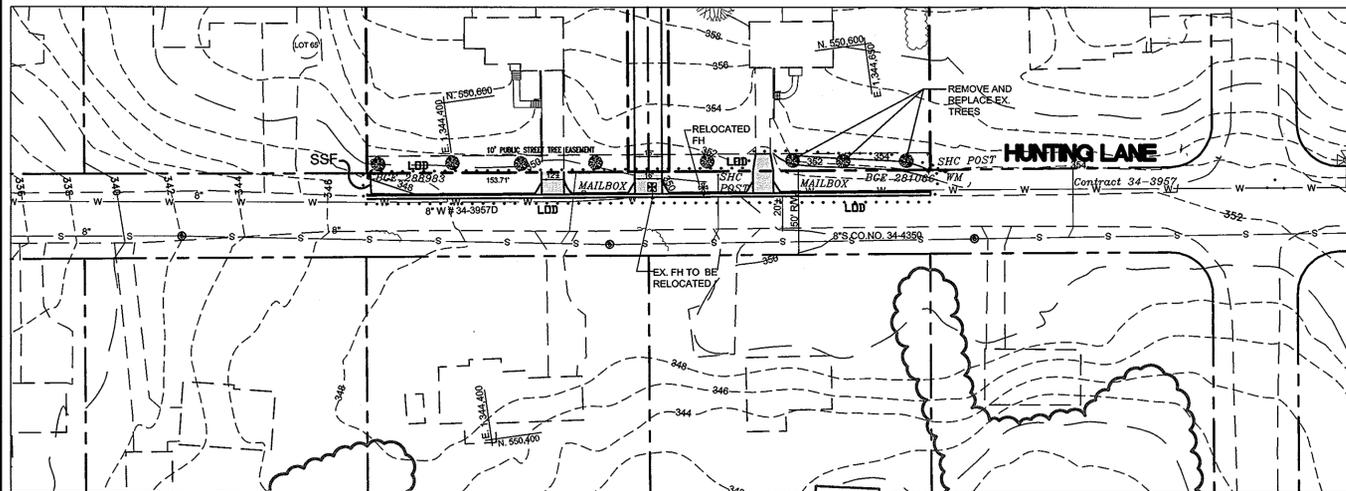
Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 14230, Expiration Date: 12/09/12.

Holiday Hills Section 4
Lots 109-112
A Resubdivision of Holiday Hills,
Section 4, Lot 66 & 67, ECP 11-055
ROAD PLAN

SUBMISSION NAME: Holiday Hills SECTION/AREA: 4 LOT/PARCEL: 103-106
PLAN OR LOT: P87 FOLIO 69 5 ZONE: R-20 MAP: 41 DISTRICT: 5th CONDUIT: 1-222
SHEET CODE: 51110 SHEET: 103-106

Date: 5/2/2012
Proj. #: 10022
Scale: 1" = 50'

2 of 5



SEC PLAN
SCALE: 1" = 50'

NOTE: GRADING FOR THE PROPOSED DRIVEWAY AND LOTS IS NOT PERMITTED BY THIS PLAN

LEGEND

EXISTING	
---	PROPERTY LINE
□	BUILDINGS
~	CONTOURS
---	ROADS
S	SANITARY
W	WATER
☼	TREES
PROPOSED	
---	PROPERTY LINE
□	BUILDINGS
~	CONTOURS
---	ROADS

SEDIMENT AND EROSION CONTROL NOTE:

IF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR DEEMS STABILIZED CONSTRUCTION ENTRANCE (SCE) AND/OR STOCKPILE AREA NECESSARY, THEN CONTRACTOR SHALL PROVIDE THESE IN THE LOCATION SPECIFIED BY THE COUNTY INSPECTOR.

This development plan is approved for soil erosion and sediment control by the HOWARD SOIL CONSERVATION DISTRICT.
 Signature: *John L. Johnson* Date: 5/2/12
 Howard SCD

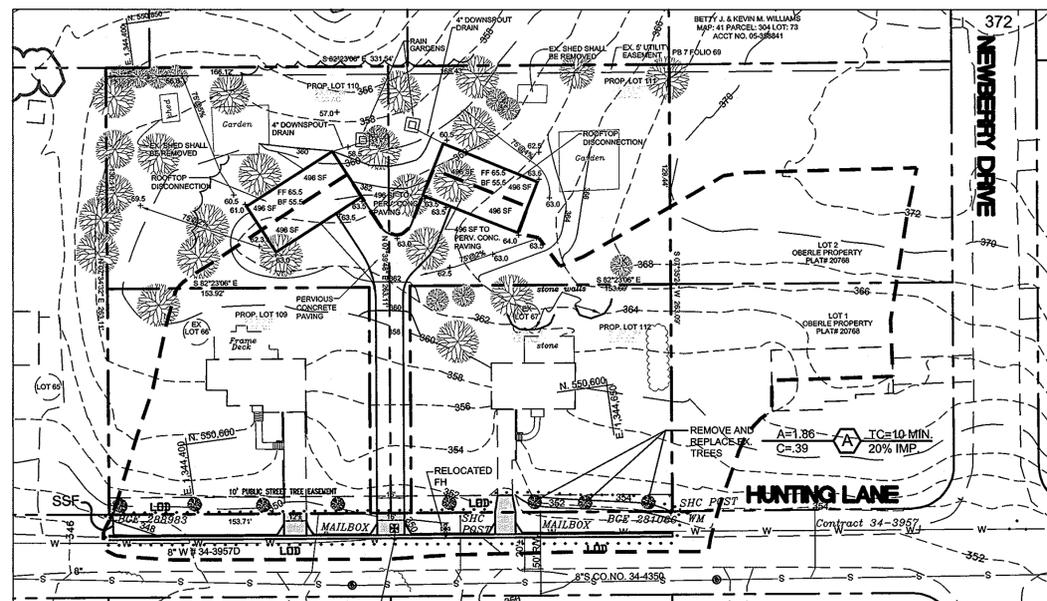
ENGINEER'S CERTIFICATE
 I hereby certify that this plan for sediment and erosion control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.
 Signature: *Jeffrey L. Schwab* Date: 5/2/12
 Signature of Engineer (print name below signature) Date

DEVELOPER'S CERTIFICATE
 I/We certify that all development and construction will be done according to this plan of development for sediment and erosion control, and that all responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspections by the Howard Soil Conservation District.
 Signature: *Jeffrey L. Schwab* Date: 5/9/12
 Signature of Developer (print name below signature) Date

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Signature: *John L. Johnson* Date: 6-2-12
 Chief, Bureau of Highways

APPROVED: DEPARTMENT OF Planning & Zoning
 Signature: *John L. Johnson* Date: 6/15/12
 Chief, Division of Land Development

Signature: *John L. Johnson* Date: 6/14/12
 Chief, Development Engineering Division



DRAINAGE AREA MAP
SCALE: 1" = 50'

Q₂ = CIA = .39 (4.5) (1.86) = 3.3 CFS
 SPREAD 7.6 3% CROSS SLOPE

HOWARD SOIL CONSERVATION DISTRICT

STANDARD SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
 Total Area of Site: 2.00 Acres
 Area Disturbed: 0.16 Acres
 Area to be paved: 0.032 Acres
 Area to be vegetatively stabilized: 0.128 Acres
 Total Cut: 69 Cu. Yds.
 Total Fill: 54 Cu. Yds.
 Offsite waste/borrow area location: None required.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each work day, whichever is shorter.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seeded Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

- Preferred -- Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs/acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq. ft.)
- Acceptable -- Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs/acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

Seeding -- For the periods March 1 -- April 30, and August 1 -- October 15, seed with 60 lbs/acre (1.4 lbs/1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 -- July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs/acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 -- February 28, protect site by:

Option 1 -- Two tons per acre of well anchored straw mulch and seed as soon as possible in the spring.
 Option 2 -- Use sod. Option 3 -- Seed with 60 lbs/acre Kentucky 30 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching -- Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring.

Maintenance -- Inspect all seeding areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

Seeded preparation: -- Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: -- Apply 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.)

Seeding: -- For periods March 1 -- April 30 and from August 15 -- October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 -- August 14, seed with 3 lbs/acre of weeping lovegrass (.07 lbs/1000 sq. ft.). For the period November 16 -- February 28, protect site by applying 2 tons/acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: -- Apply 1-1/2 to 2 tons/acre (70 to 90 lbs/1000 sq. ft.) of unrotted weed-free, small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 ft. or higher, use 348 gal. per acre (8 gal/1000 sq. ft.) for anchoring.

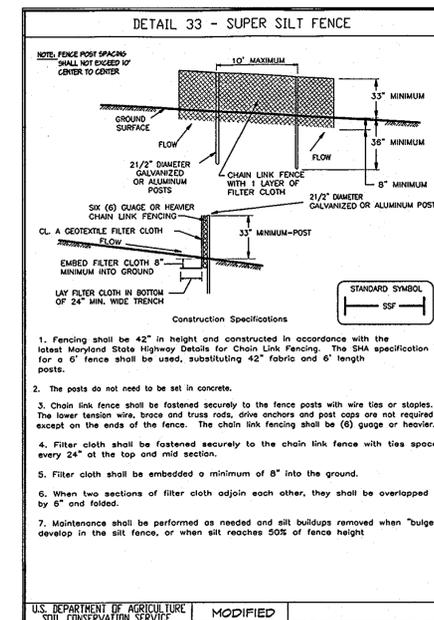
Refer to the 1994 MAR4ND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
 - THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
 - CLEAR AND GRUB MINIMUM AREA REQUIRED FOR INSTALLATION OF BITUMINOUS CURB AND ROAD WIDENING AND INSTALL PROPOSED WATER AND SEWER HOUSE CONNECTIONS. INSTALL PAVING AND BITUMINOUS CURB. INSTALL DRIVEWAY AND ADJUST EXISTING DRIVEWAYS. CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE STABILIZED THE SAME DAY AND RELOCATE FIRE HYDRANT.
 - INSTALL TOPSOIL, FINE GRADE AND STABILIZE REMAINING DISTURBED/UNPAVED AREAS WITH SEED AND MULCH.
 - AFTER SITE IS PROPERLY STABILIZED, AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES AND STABILIZE ALL REMAINING DISTURBED AREAS.
- * IF REQUIRED BY THE INSPECTOR SILT FENCE, OR SUPER SILT FENCE SHALL BE INSTALLED BEHIND BITUMINOUS CURB AND AT EXISTING DRIVEWAYS.

NOTE: WATER AND SEWER HOUSE CONNECTIONS SHALL BE INSTALLED PRIOR TO INSTALLING THE SURFACE OVERLAY.

NO. OF DAYS
1
5
5
1
1



U.S. DEPARTMENT OF AGRICULTURE
 SOIL CONSERVATION SERVICE
 MODIFIED

Tesseract
 TESSERACT SITES, INC.
 401 Washington Ave, Suite 303
 Towson, Maryland, 21204
 P. 410.321.7600
 F. 410.321.7601

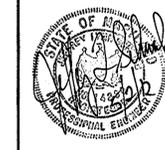
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 14230, Expiration Date: 12/09/12.

Holiday Hills Section 4
 Lots 109-112
 A Resubdivision of Holiday Hills,
 Section 4, Lot 66 & 67, ECP 11-055
SEDIMENT & EROSION CONTROL
PLAN & DETAILS

SUBDIVISION NAME: Holiday Hills	SECTION/AREA: 4	LOT/PIECES: 103-108
PLAN OR LOT: PB7 Folio 69 5	ZONE: R-20	DATE: 41
REVISION CODE: 1-E22	SEWER CODE: 658100	

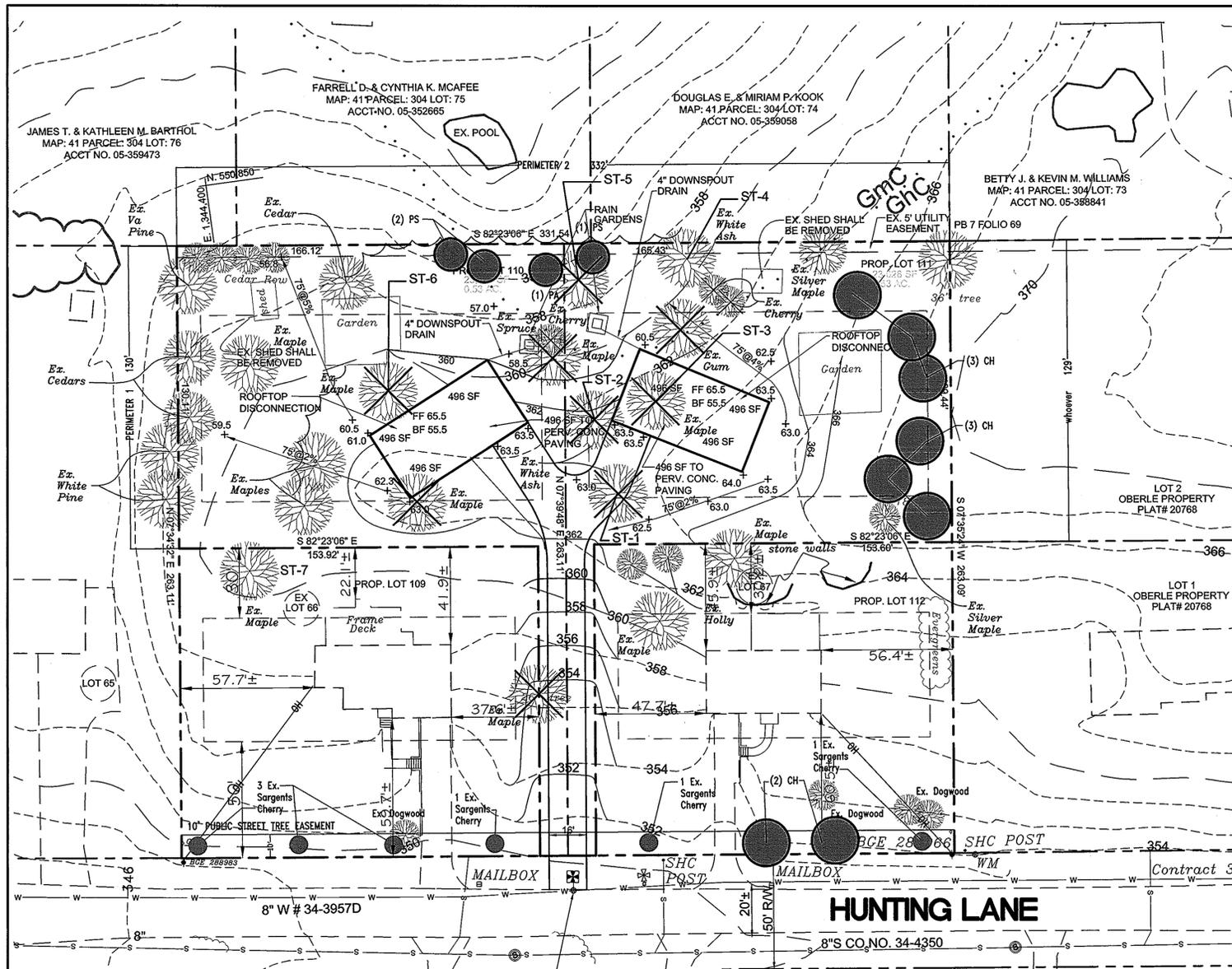
CONTACT
 Jeffrey L. Schwab
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OWNER
 Mr. Dao Lee
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 ph: 410-292-8007



Date: 5/2/2012
 Proj. #: 10022
 Scale: 1"=50'

3 of 5



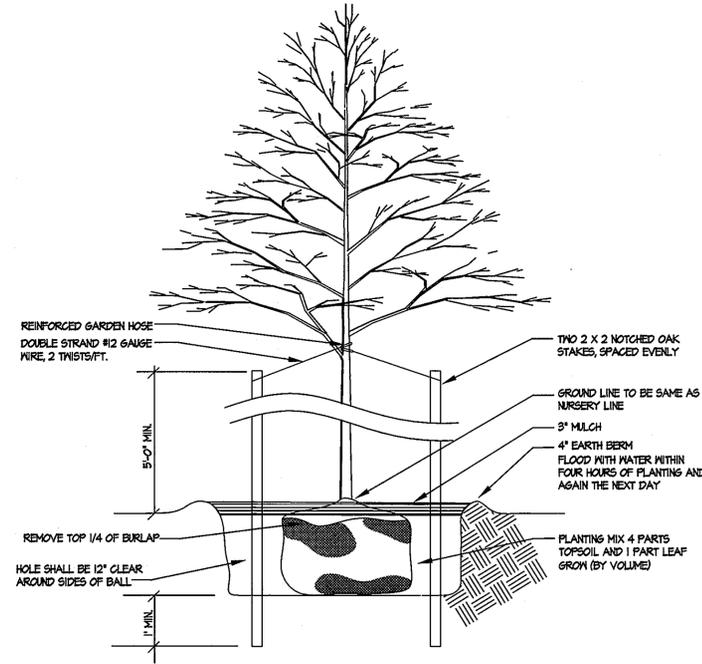
PLANT LIST

Quan	Key	Scientific Name	Common Name	Size	Comments
Major Deciduous Trees					
8	CH	Prunus Sargentii	Sargents Cherry	2 1/2-3" Cal.	
Evergreen Trees					
1	PA	Picea abies	Spruce	6-8' Ht.	
3	PS	Pinus strobus	White pine	6-8' Ht.	

5 additional Prunus Sargentii are provided as a condition of approval of the waiver request from Section 16.1205 a.(7) and (10) to remove existing specimen trees and must be 4" Caliper.

LEGEND

- EXISTING**
- PROPERTY LINE
 - [] BUILDINGS
 - ~ CONTOURS
 - ROADS
 - SANITARY
 - WATER
 - [*] EX. TREES
 - [●] EX. CHERRY TREE
- PROPOSED**
- PROPERTY LINE
 - [] BUILDINGS
 - ~ CONTOURS
 - ROADS
 - [●] TREES (PROPOSED)
 - [*] EX. TREES TO BE REMOVED



DECIDUOUS TREE PLANTING DETAIL
WATER AND MAINTAIN PLANTS IN ACCORDANCE WITH THE SPECIFICATIONS. NOT TO SCALE

SCHEDULE A - PERIMETER LANDSCAPING

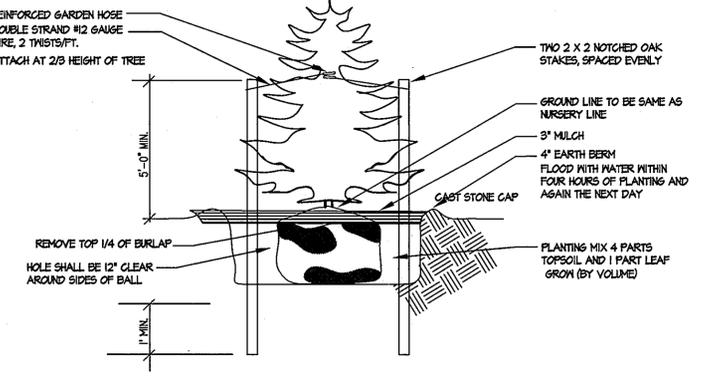
Perimeter	1	2	3	TOTAL
Landscape Type	A	A	A	1 shade/60 if
Linear ft Edge	130	332	129	
Credit (wall, fence, berm) - Linear ft	N	N	N	
Plants Required				
Shade	2	6	2	15# Shade
Ornamental	-	-	-	0 Ornamental
Evergreen	-	-	-	0 Evergreen
Shrubs	-	-	-	0 Shrubs
Credit (Ex Veg)				
Shade	2	4	1	9
Ornamental	-	-	-	0
Evergreen	-	4	-	4
Shrubs	-	-	-	0
Plants Provided				
Shade	0	0	6	6 Shade
Ornamental	-	-	-	0 Ornamental
Evergreen	-	4**	-	4 Evergreen
Shrubs	-	-	-	0 Shrubs

NOTE: DRIVEWAY AND LOT GRADING SHALL BE DONE IN ACCORDANCE WITH THE APPROVED SDP, NOT WITH THE ROAD CONSTRUCTION AND IS SHOWN TO COORDINATE WITH THE REQUIRED LANDSCAPING FOR THE PERIMETER.

STREET TREES
Required:
Hunting Lane 331.47 LF @ 30' for small trees or 40' for lgd trees
Credit for Existing Trees to Remain (Onsite and within R/W): 0
Total Required: 8 trees
Provided:
Medium or Large Trees 6 Existing Trees & 2 Proposed Trees
Small Trees 0
Clustering of street trees is requested in order to maintain adequate separation from existing overhead lines serving existing homes, to provide setbacks from existing underground utilities serving existing homes, and to avoid existing and proposed driveways.

SPECIMEN TREES

NO.	DBH	COMMON NAME	SCIENTIFIC NAME	CONDITION	STATUS
ST-1	3 1/4"	White Ash	Fraxinus americana	Fair	Remove
ST-2	3 1/4"	White Ash	Fraxinus americana	Fair	Remove
ST-3	3 1/4"	Red Maple	Acer rubrum	Fair	Remove
ST-4	3 1/4"	White Ash	Fraxinus americana	Fair	Retain
ST-5	3 1/4"	Black Cherry	Prunus serotina	Poor	Remove
ST-6	3 1/4"	Red Maple	Acer rubrum	Poor	Remove
ST-7	3 1/4"	Red Maple	Acer rubrum	Poor	Retain



EVERGREEN TREE PLANTING DETAIL
WATER AND MAINTAIN PLANTS IN ACCORDANCE WITH THE SPECIFICATIONS. NOT TO SCALE

APPROVED: DEPARTMENT OF PUBLIC WORKS
Mike J. Cahill, Chief, Bureau of Highways, 6-7-12
APPROVED: DEPARTMENT OF Planning & Zoning
Karl Schuchman, Chief, Division of Land Development, 6/15/12
Chief, Development Engineering Division, 6/14/12

DEVELOPER'S / BUILDER'S CERTIFICATE
I/ we certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Subdivision and Land Development Regulations and the Landscape Manual. I/ we further certify that upon completion, a Letter of Landscape Installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.
Name: _____ Date: 5/9/12

Notes
1. Financial surety for the required perimeter landscaping in the amount of \$2,400 is part of the developers agreement.
2. The landscape plan has been prepared in accordance with Section 16.124 of the Howard County Code and the Howard County Landscape Manual. Landscaping for lots 109 and 112 is provided in accordance with a certified landscape plan as part of the construction drawings in accordance with section 16.124 of the Howard County Code and the landscape manual. Landscape surety in the amount of \$2,400.00 (6 shade trees & 4 evergreen trees) will be posted with the developers agreement.

OWNER
Mr. Dae Lee
10717 Hunting Lane
Columbia, MD 21044
ph: 410-242-8007

CONTACT
Jeffrey L. Schwab
Tesseract Sites, Inc.
401 Washington Ave, Suite 303
Towson MD, 21204

Tesseract
Tesseract Sites, Inc.
401 Washington Ave, Suite 303
Towson, Maryland, 21204
p. 410.321.7600
f. 410.321.7601

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 14230, Expiration Date: 12/09/12.

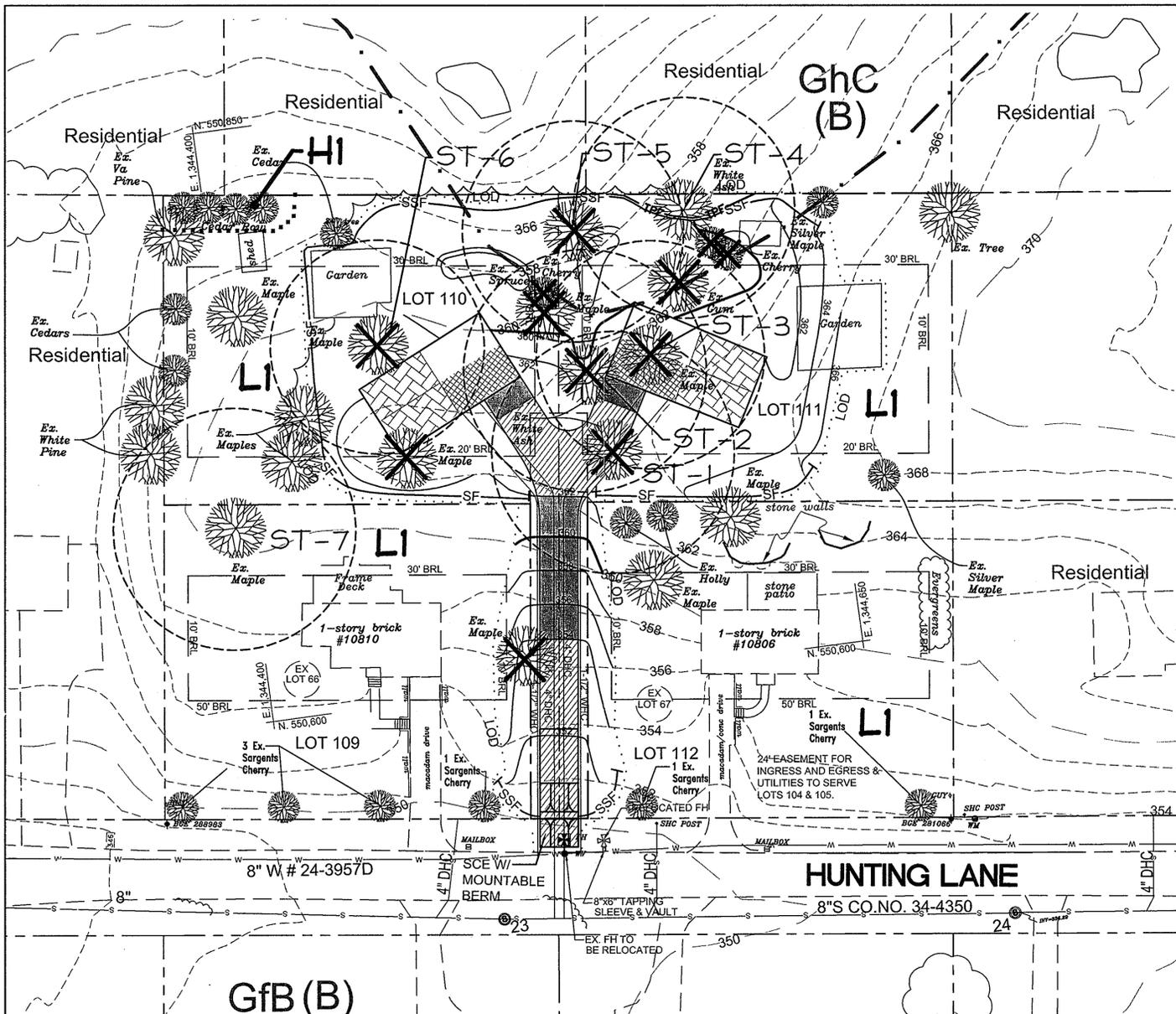
Holiday Hills Section 4
Lots 109-112
A Resubdivision of Holiday Hills
Section 4, Lot 66 & 67, ECP 11-055

LANDSCAPING PLAN AND DETAILS

SECTION NAME: Holiday Hills	SECTION/AREA: 4	LOT/PARCEL: 103-106
PLAN OR OF: P&Z	DATE: 5/12/12	PROJECT NO: 10022
DATE: 6/15/12	SCALE: 1"=50'	

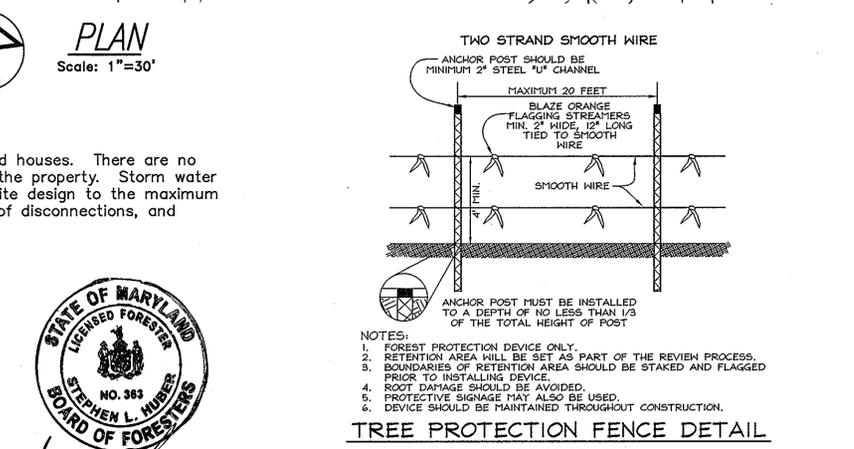
Scale: 1"=50'

4 of 5



Design Narrative:
 The property is currently developed with 2 single family detached houses. There are no environmental features, floodplains, forests, or steep slopes on the property. Storm water design for the proposed additional Lots will use environmental site design to the maximum extent practical and will consist of pervious concrete paving, roof disconnections, and rainwater harvesting.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 CHIEF, DEVELOPMENT ENGINEERING DIVISION & DATE 6/14/12
 CHIEF, DIVISION OF LAND DEVELOPMENT & DATE 6/14/12
 DIRECTOR



SPECIMEN TREES

NO.	DBH	COMMON NAME	SCIENTIFIC NAME	CONDITION	STATUS
ST-1	34"	White Ash	Fraxinus americana	Fair	Remove
ST-2	34"	White Ash	Fraxinus americana	Fair	Remove
ST-3	32"	Red Maple	Acer rubrum	Fair	Remove
ST-4	31"	White Maple	Fraxinus americana	Fair	Retain*
ST-5	31"	Black Cherry	Prunus serotina	Poor	Remove
ST-6	30"	Red Maple	Acer rubrum	Poor	Remove
ST-7	34"	Red Maple	Acer rubrum	Poor	Retain

* Grading under SDP to provide minimum 8' clearance from trunk to SF.

General FSD/FCP Notes

- Subject property zoned R-20 per 02/02/04 Comprehensive Zoning Plan.
- Total area of property = 2.00 ac.±
- Existing 2 foot Topography on site based on field run topographic survey provided by Shanberger and Lane in March 2011.
- There are no steep slopes, State Champion Trees, streams, or wetlands on the project site.
- Per a MERLIN search on March 4, 2011, there are no floodplains, critical habitats of rare, threatened or endangered species, or historic structures on the project site.

FOREST STAND ANALYSIS TABLE

KEY	TYPE OF COMMUNITY	AREA	SOIL INFORMATION				EXISTING VEGETATION (Type and approx. %)	STAND CHARACTERISTICS		FOREST AREA IN SENSITIVE ENVIRONMENTS
			SOIL TYPE	TYPICAL FOREST COVER	WOODLAND SUITABILITY INDEX	HABITAT VALUE		SIZE AVG. DIAM	AGE	
NO ON-SITE FOREST RESOURCES EXIST										
L-1	Lawn	1.98								
H-1	Hedgerow	0.02								

FOREST CONSERVATION WORKSHEET

Net Tract Area	Acres
A. Total Tract Area	2.00
B. Area Within 100 Year Floodplain	0
C. Other deductions	0
D. Net Tract Area	2.00
Zoning Use Category: RESIDENTIAL-SUBURBAN	
Land Use Category	
E. Afforestation Minimum (15 % x D)	0.30
F. Conservation Threshold (20 % x D)	0.40
Existing Forest Cover	
G. Existing Forest on Net Tract Area	0.00
H. Forest Area Above Conservation Threshold	0.00
Break-even Point	
I. Forest Retention Above Threshold with no Mitigation	0.04
J. Clearing Permitted without Mitigation	0.00
K. Forest Areas to be Cleared	0.00
L. Forest Areas to be Retained	0.00
Planting Requirements	
M. Reforestation for Clearing Above Threshold	0
N. Reforestation for Clearing Below the Threshold	0
P. Credit for Retention Above Conservation Threshold	0
Q. Total Reforestation Required	0
R. Total Afforestation Required	0.3
S. Total Reforestation and Afforestation Requirement	0.3

Forest Stand Delineation Narrative
 This Forest Stand Delineation was prepared in accordance with the Howard County Forest Conservation Manual.
 LI The majority of the site is lawn containing scattered trees and shrubs around the existing house sites. There are seven specimen trees on the lawn area.
 HI There is a row of Red Cedar along the rear property line on the northwest side.

FOREST STAND ANALYSIS TABLE

KEY	TYPE OF COMMUNITY	AREA	SOIL INFORMATION				EXISTING VEGETATION (Type and approx. %)	STAND CHARACTERISTICS		FOREST AREA IN SENSITIVE ENVIRONMENTS
			SOIL TYPE	TYPICAL FOREST COVER	WOODLAND SUITABILITY INDEX	HABITAT VALUE		SIZE AVG. DIAM	AGE	
NO ON-SITE FOREST RESOURCES EXIST										
L-1	Lawn	1.98								
H-1	Hedgerow	0.02								

FSD / FCP LEGEND

Forest Stand Boundary: Dotted line

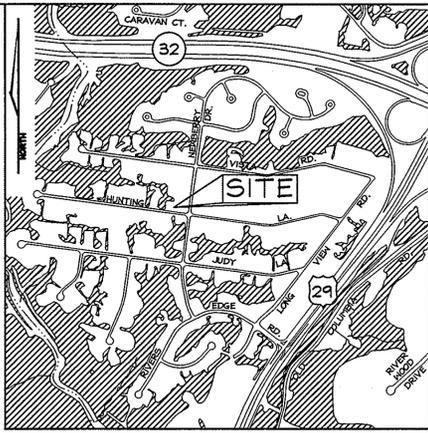
Forest Stand Label: **F-1**

Specimen Trees with Critical Root Zone: Tree symbol with circle

Tree Protection Fence: TPF

SOIL PROTECTION ZONE NOTES

- The Soil Protection Zone shall include all areas contained outside the Limit of Disturbance.
- Where possible, the Soil Protection Zone shall extend to the drip line of specimen trees. For other groups of trees, the zone shall be the drip line or 40% of the height of the tree, whichever is greater.
- No construction activity is permitted within the Soil Protection Zone.
- If soil has been compacted or grading has taken place in the vicinity of the Soil Protection Zone, root pruning shall be implemented per Root Pruning detail, shown on this plan.
- Root pruning shall occur prior to the beginning of construction.
- Where the Limit of Disturbance must encroach inside the Critical Root Zone of a tree, soil disturbance shall be mitigated with vertical mulching, radial trenching, or another method approved by the ERI Forest Conservation Professional.
- Prior to construction, the Limits of Disturbance shall be marked and the ERI Professional shall make a final determination which trees will need preventative treatment or removal.
- Tree maintenance and removal shall be undertaken by a qualified Maryland Tree Expert to ensure damage to surrounding trees is minimized.
- Brush and limbs removed for construction shall be chipped and spread at the edge of the Soil Protection Zone to a depth of 6 inches. This shall occur outside the Soil Protection Zone where compaction could impact otherwise unprotected Critical Root Zone.



VICINITY MAP
 SCALE: 1"=1000'

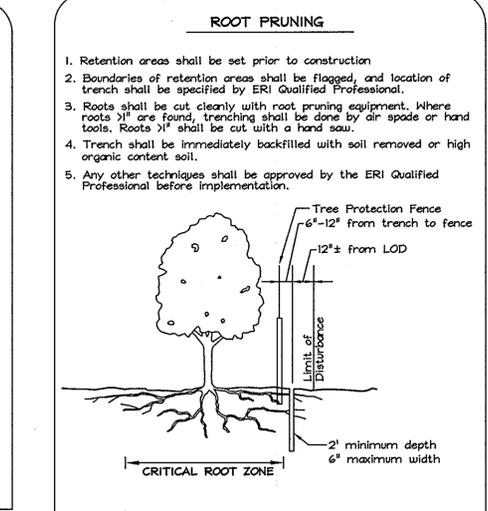
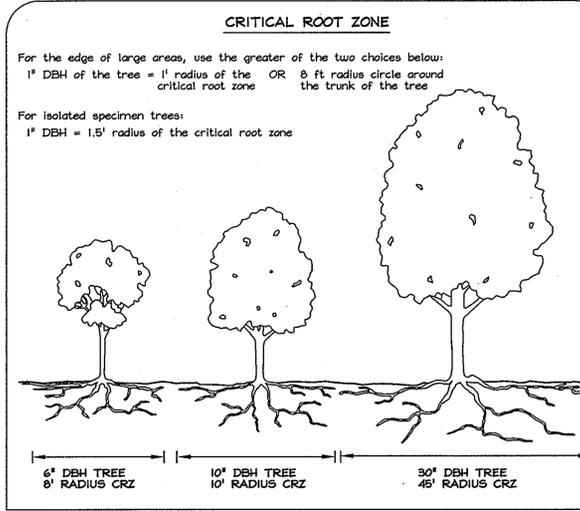
LEGEND

EXISTING

- PROPERTY LINE
- BUILDINGS
- CONTOURS
- ROADS
- SANITARY
- WATER
- SOILS LINE
- SOILS GROUP
- TREES
- TREES TO BE REMOVED

PROPOSED

- PROPERTY LINE
- BUILDINGS
- CONTOURS
- ROADS
- SANITARY
- WATER
- LIMIT OF DISTURBANCE (LOD)
- SUPER SILT FENCE
- SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE



Forest Conservation Narrative
 This forest conservation plan has been developed in accordance with the Howard County Forest Conservation Manual and the Forest Conservation Act of 1991.
 The total tract area consists of 2.00 Ac. on 2 lots to be subdivided into 4 lots. There are no forest resources on site. Due to the small size of the lot, the 0.30 acres of afforestation requirement shall be satisfied with a fee-in-lieu payment of \$9,801.00 (13,068.00 SF x 0.75).

EXPLORATION RESEARCH, INC.
 ENVIRONMENTAL CONSULTANTS
 LANDSCAPE ARCHITECTS
 6539 EDWARDS LAKE
 ELICHTON, MARYLAND 21075
 TEL: (410) 587-6210 FAX: (410) 708-1662

OWNER
 Mr. Dee Leo
 10717 Hunting Lane
 Columbia, MD 21044
 ph: 410-292-8007

Tesseract
 TESSERACT SITES, INC.
 401 Washington Ave. Suite 303 p. 410.321.7600
 Towson, Maryland, 21284 f. 410.321.7601

Holiday Hills Section 4
 Lots 103-106
 A Resubdivision of Holiday Hills,
 Section 4, Lot 66 & 67

FSD / FCP Plan

SECTION NAME: Holiday Hills	SECTION/AREA: 4	LOT/PARCEL: 103-106
PLAN ON LP: PBT Falls 691	DATE: 5	R-20
DATE: 5/12/12	DATE: 4/1	DATE: 5/12/12
DATE: 5/12/12	DATE: 5/12/12	DATE: 5/12/12

1-E22 658100

Date: 5/2/2012
 Proj. #: 10022
 Scale: AS SHOWN

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