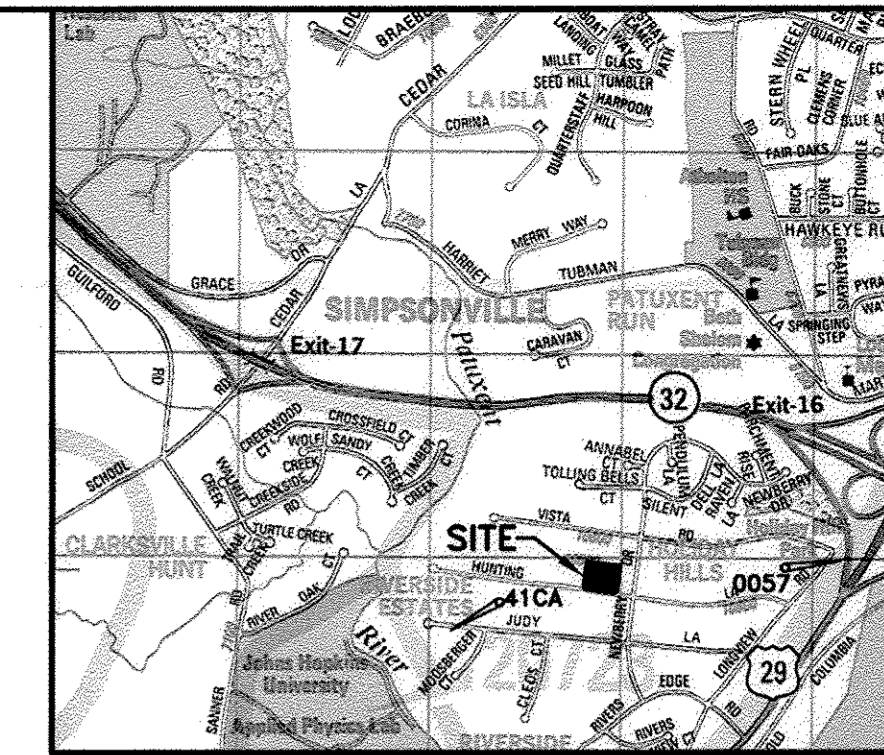
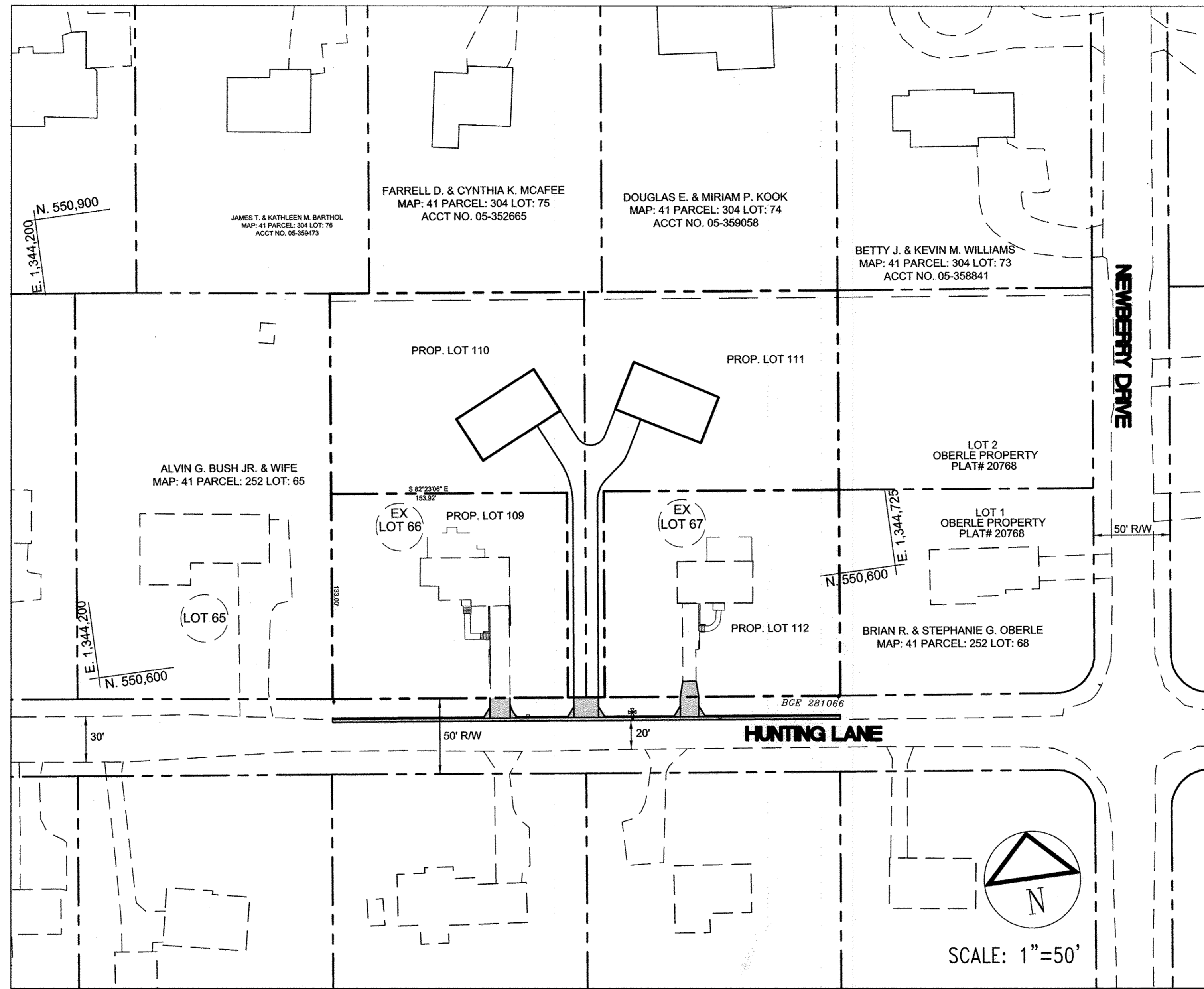


**GENERAL NOTES**

- 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) 313-1800 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 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 Shanaberger & Lane 10/22/10.
- The coordinates shown herein 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. 34-3457D & 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 \$4,800 (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 curb, 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 vegetative 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 developer's 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 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 \$2400.00 (6 shade trees & 4 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 #4030040000-1 300-422000.
- See previous DPZ Files ECF II-055, MP II-162.
- Waivers are being requested for the following sections of the Subdivisions and Land Development Regulations MP-II-162. Approved subject to conditions 5/14/11.  
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 16.1205.a.(1) - requiring retention of trees 30" or greater. Approved to remove 3 trees and replace with 5 shade trees.  
Section 16.1205.a.(10) - requiring retention of specimen trees. Approved to remove 3 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 (125 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 MB5 K0015.03100.



Vicinity Map - Scale: 1" = 2000'  
ADC Map 15-C13  
ADC The 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: 398.864  
41CA  
NORTHING: 550124.8331  
EASTING: 1342950.8189  
ELEVATION: 295.328

SHEET INDEX

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

# Cover Sheet

# HOLIDAY HILLS SECTION 4

Howard County, Maryland

LOTS 109-112

**NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET**  
G. SCOTT SHANABERGER  
SHANABERGER & LANE  
LICENSE EXPIRATION DATE: 4/2/2018

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

**OWNER**  
Mr. Dae Lee  
10717 Hunting Lane  
Columbia, MD 21044  
ph: 410-242-0007

**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**

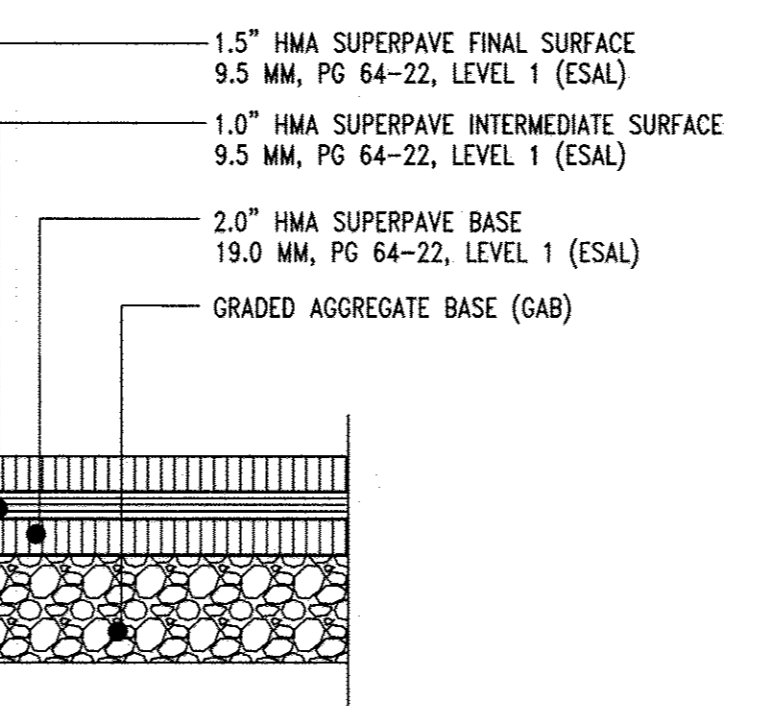
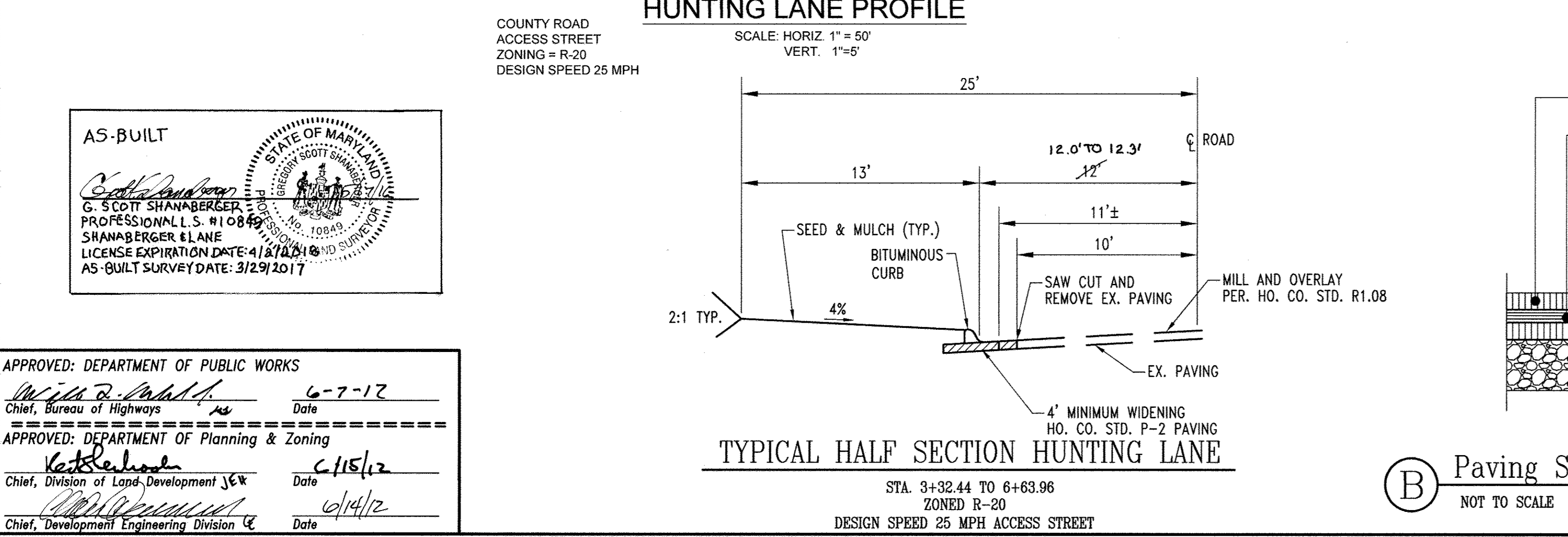
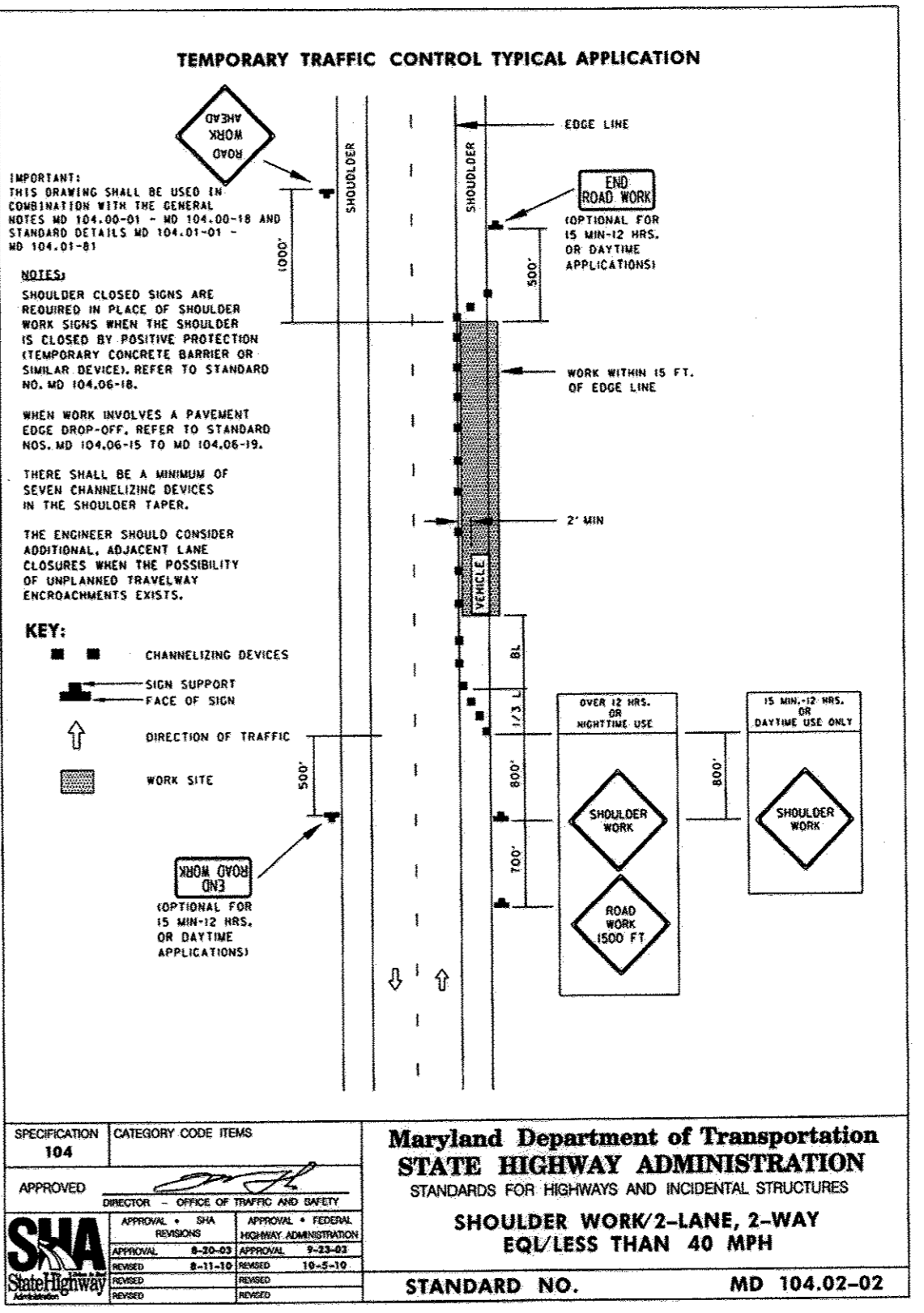
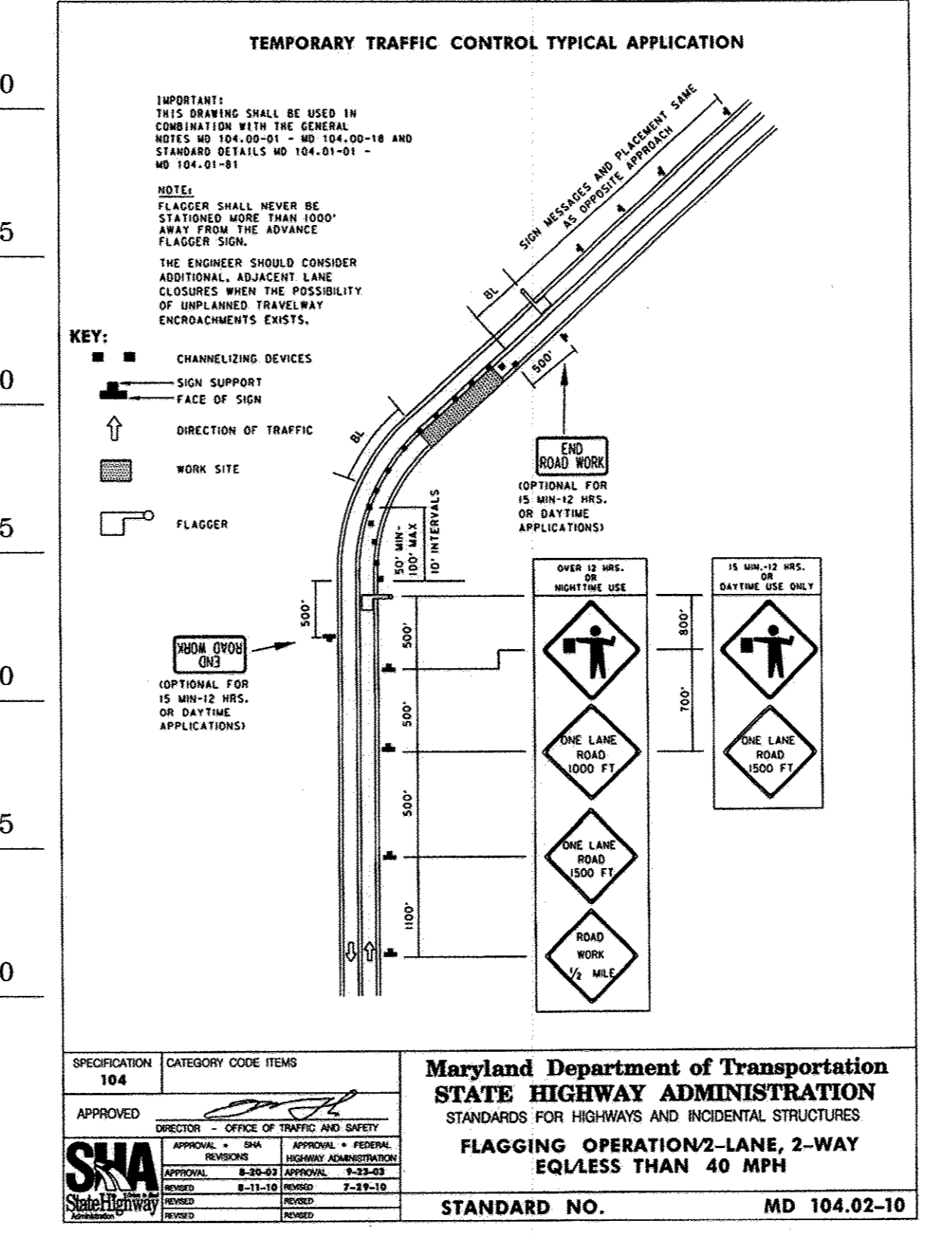
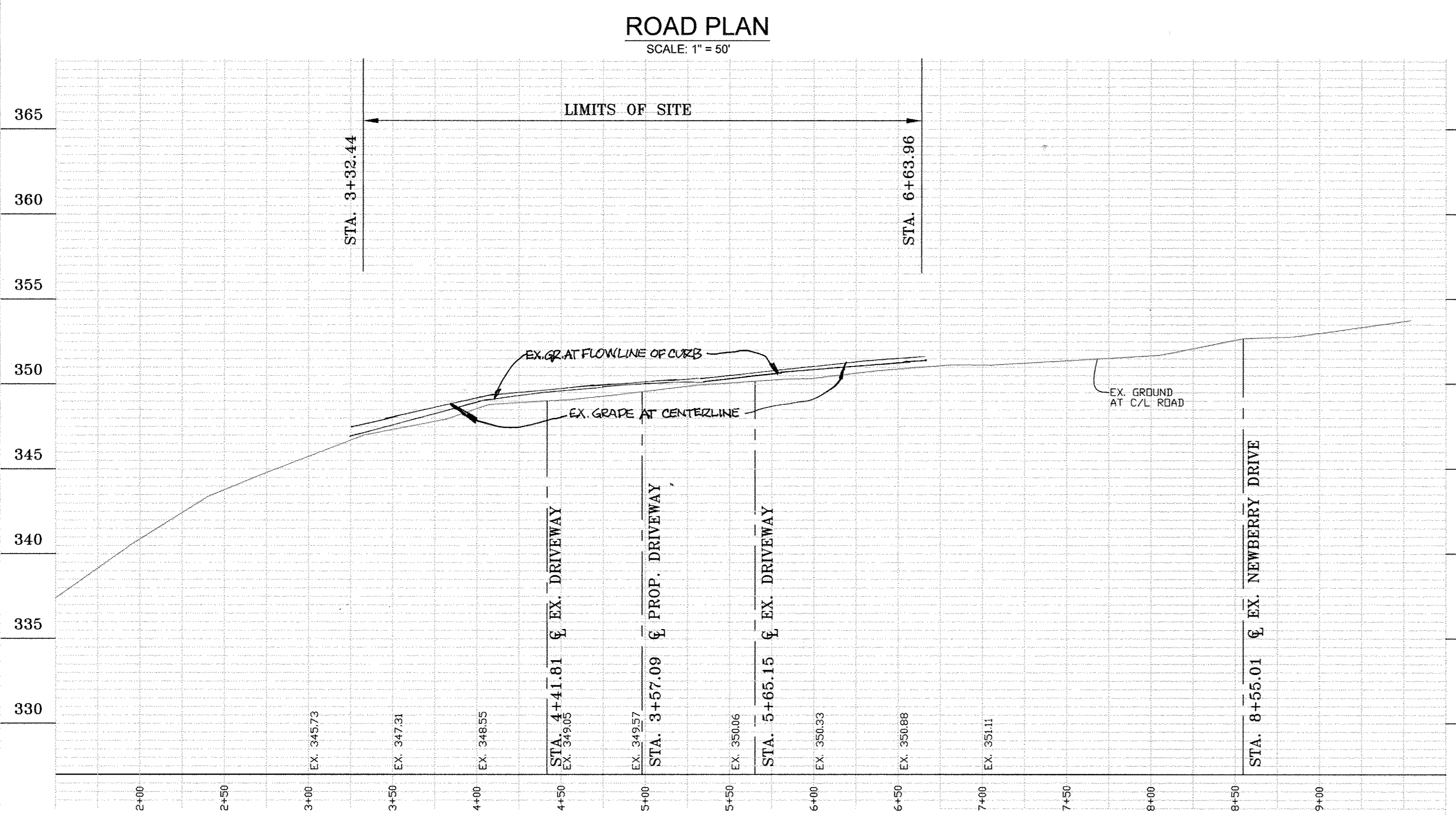
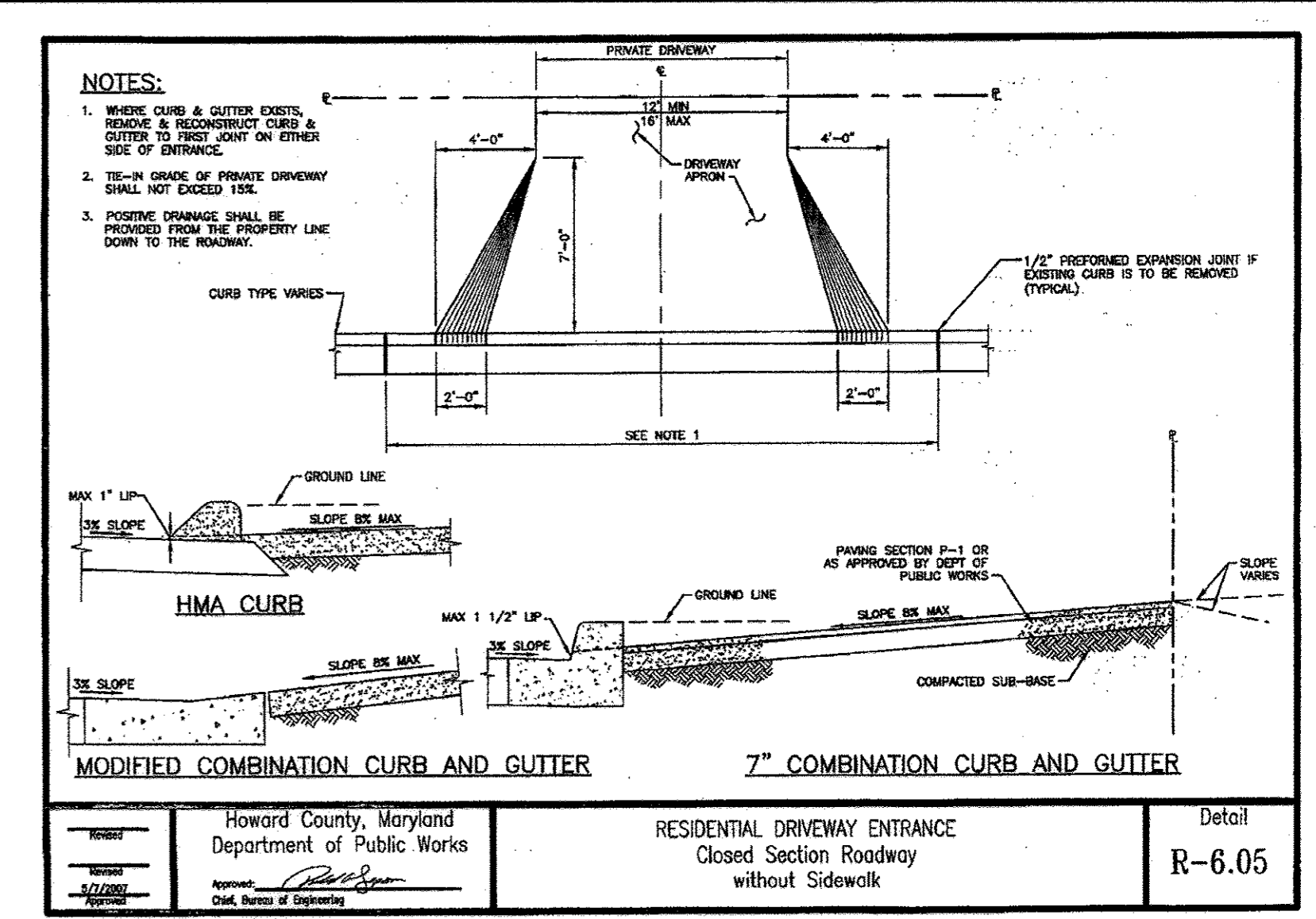
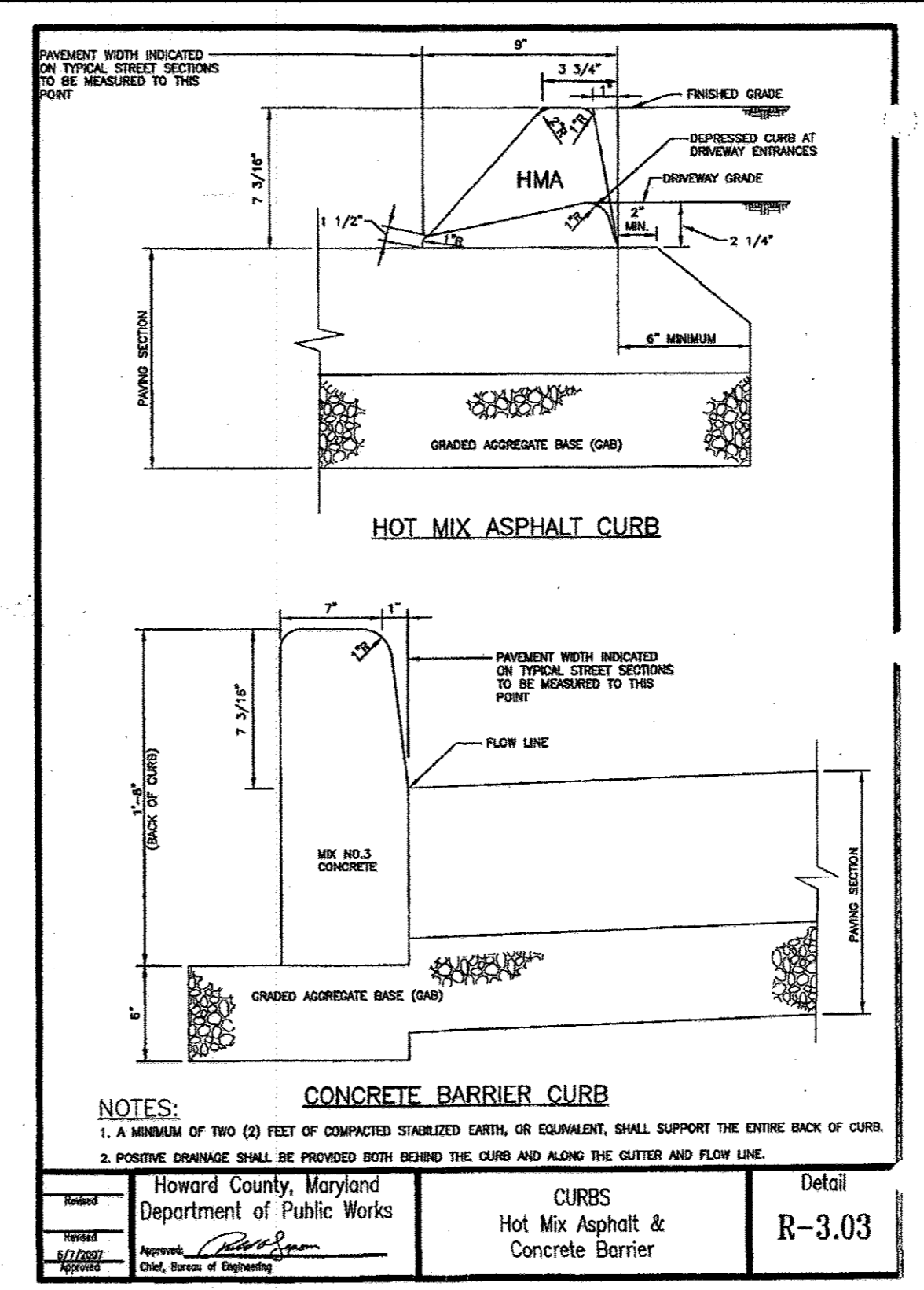
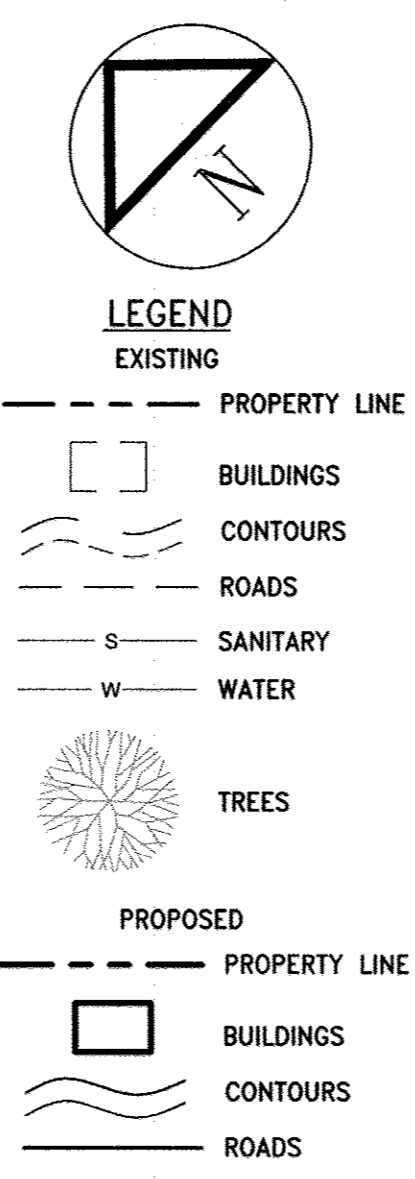
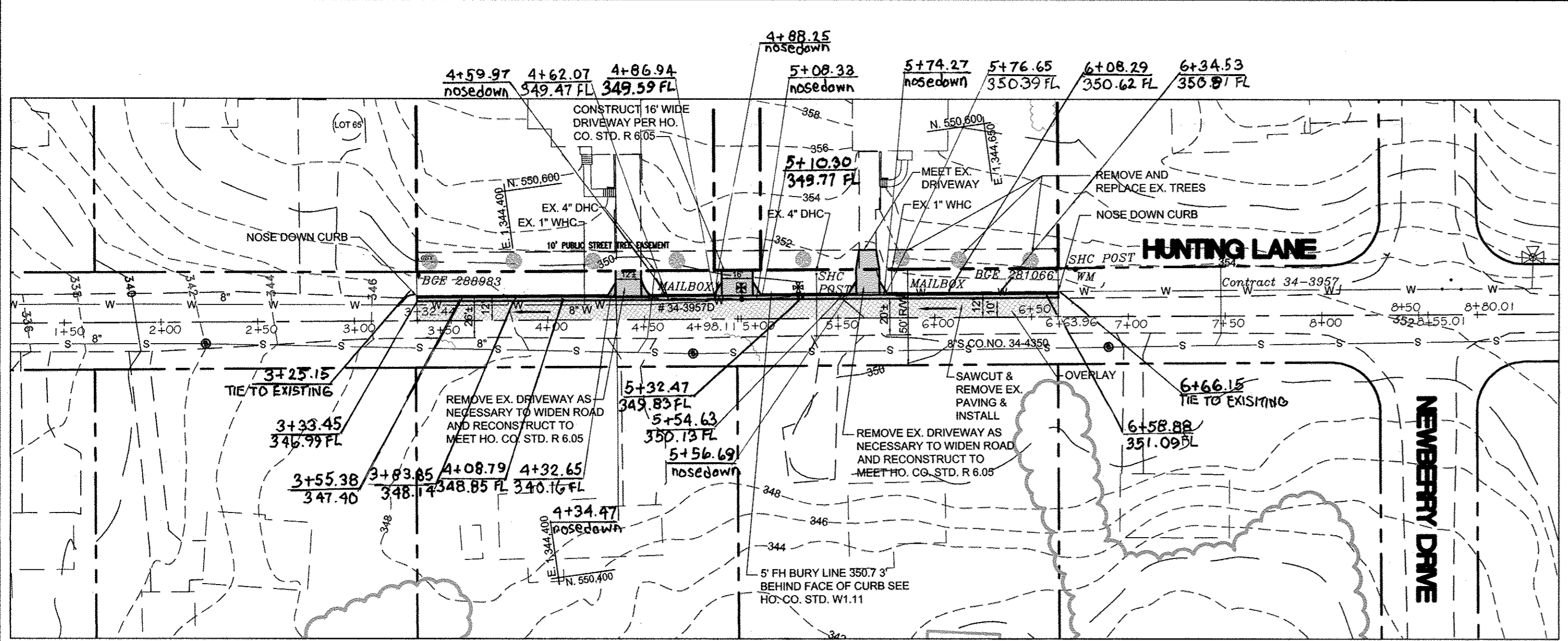
SUBDIVISION NAME: Holiday Hills		SECTION/AREA: 4	LOT/PARCEL: 103-106
PLAN OR LOT: P87 Folio 69	BLK: 5	MAP/ZONE MAP: R-20	ELECTRICITY: 5th
WATER CODE: 1-E22	SEWER CODE: 658100	DATE: 5/2/2012	
CONTACT: Jeffrey L. Schwab, Tesseract Sites, Inc., 401 Washington Ave, Suite 303, Towson MD, 21204		Proj. #: 10022	
OWNER: Mr. Dae Lee, 10717 Hunting Lane, Columbia, MD 21044, ph: 410-242-0007		Scale: 1"=50'	

1 of 5

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*W. R. Hall* 6-7-12  
Chief, Bureau of Highways Date

APPROVED: DEPARTMENT OF Planning & Zoning  
*V. P. ...* 6/15/12  
Chief, Division of Land Development Date

*...* 6/14/12  
Chief, Development Engineering Division Date



AS-BUILT  
 G. SCOTT SHANBERGER  
 PROFESSIONAL L.S. #10849  
 SHANBERGER & LANE  
 LICENSE EXPIRATION DATE: 4/1/2016  
 AS-BUILT SURVEY DATE: 3/29/2017

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

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

Chief, Development Engineering Division  
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CONTACT: Jeffrey L. Schwab, Tesseract Sites, Inc., 401 Washington Ave, Suite 303, Towson MD, 21204

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

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.

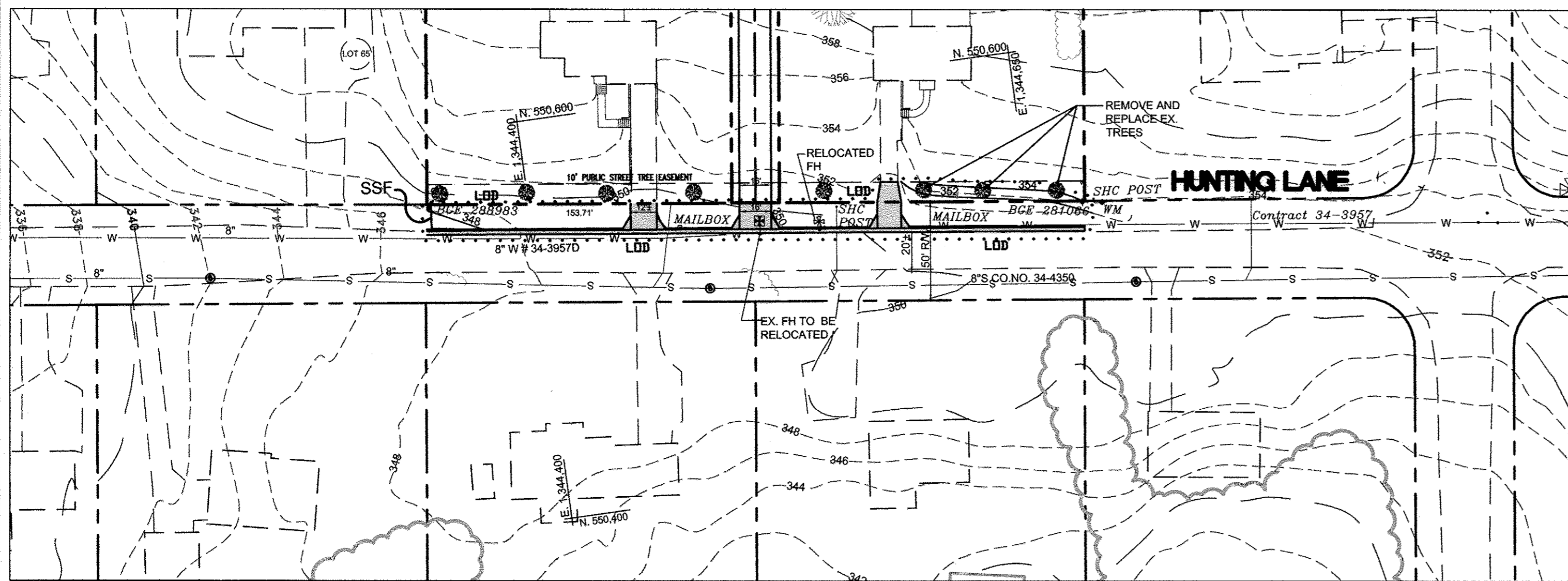
**Holiday Hills Section 4**  
 Lots 109-112  
 A Resubdivision of Holiday Hills,  
 Section 4, Lot 66 & 67, ECP 11-055

**ROAD PLAN**

SECTION/AREA: 4  
 LOT/PARCEL: 103-106  
 PLAN OR LOT: 89  
 SHEET: 5  
 ZONE: R-20  
 DISTRICT: 41  
 CONGRESS TOWN: 5th  
 SHEET CODE: 1-E22  
 SHEET CODE: 658100

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.

**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.

**Seedbed 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 reseeding.

**TEMPORARY SEEDING NOTES**

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

**Seedbed 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.

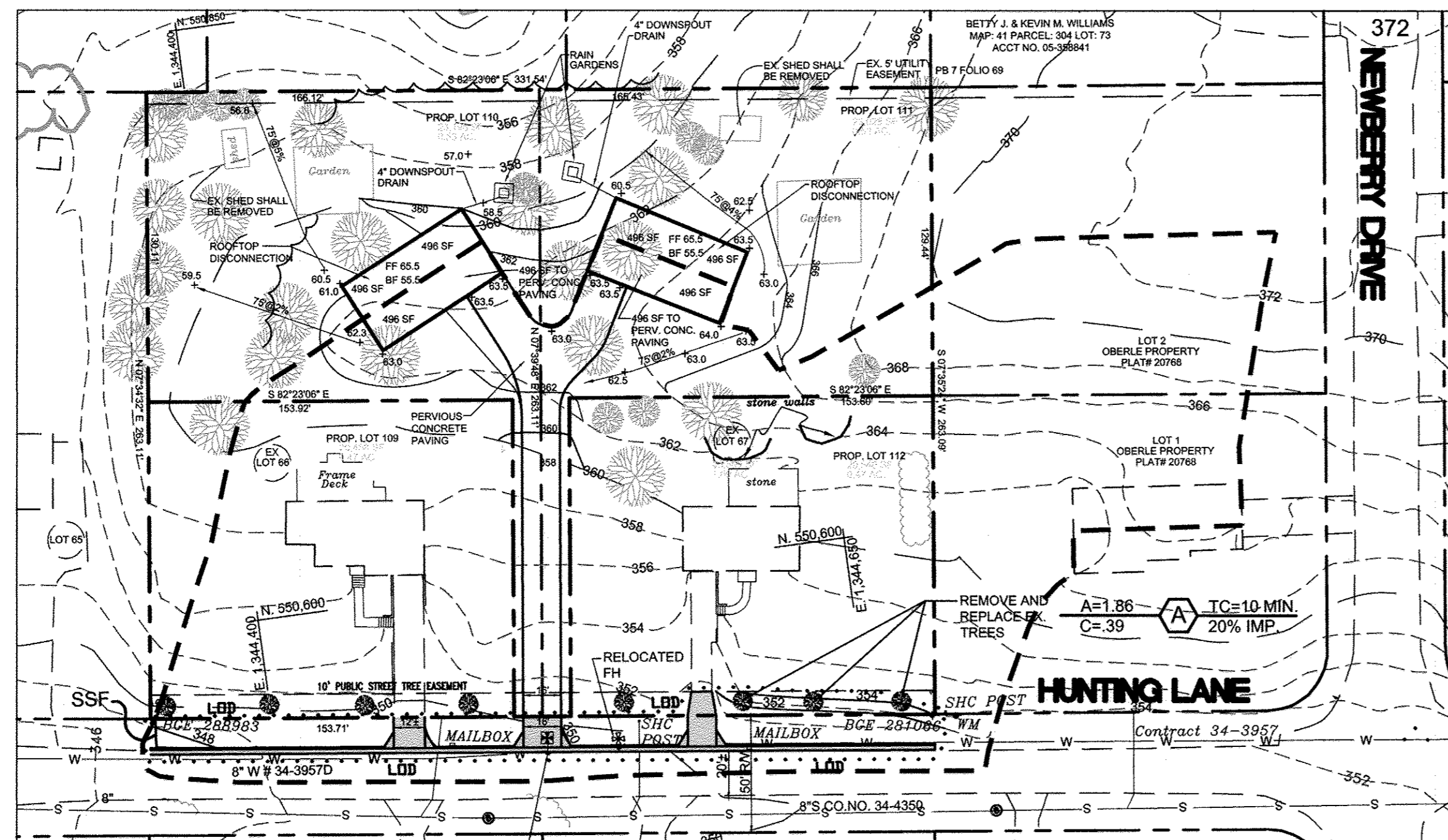
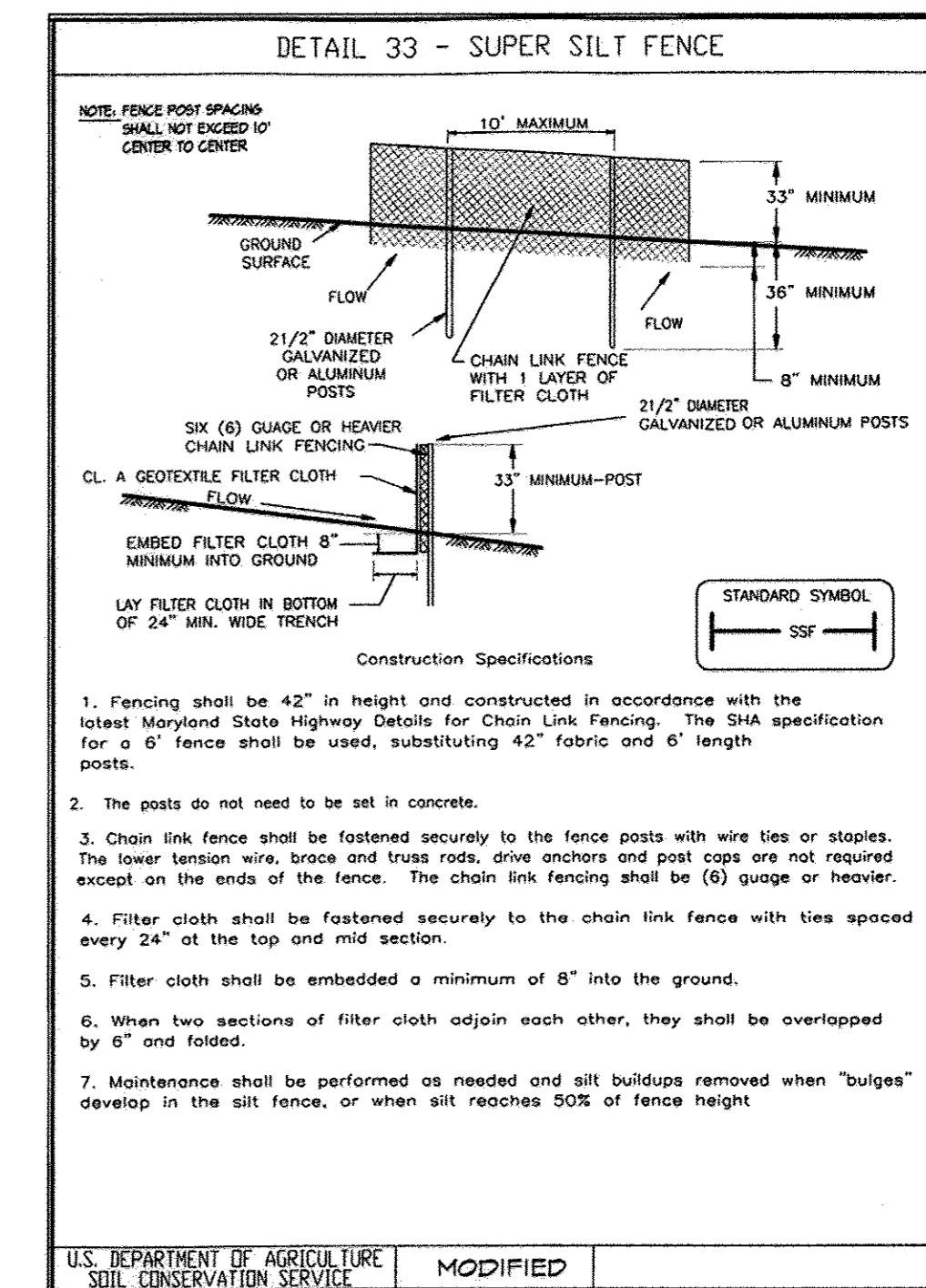
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Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

**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.



**DRAINAGE AREA MAP**

SCALE: 1" = 50'

$Q_2 = CIA = .39 (4.5) (1.86) = 3.3 \text{ CFS}$   
SPREAD 7.6 3% CROSS SLOPE

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

**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."  
*Jeffrey L. Schwab* 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."  
*Jeffrey L. Schwab* 5/9/12  
Signature of Developer (print name below signature) Date

**APPROVED: DEPARTMENT OF PUBLIC WORKS**  
*William A. Mulla* 6-2-12  
Chief, Bureau of Highways Date

**APPROVED: DEPARTMENT OF Planning & Zoning**  
*Vicki Schaefer* 6/15/12  
Chief, Division of Land Development Date

*William A. Mulla* 6/14/12  
Chief, Development Engineering Division Date

**NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET**  
*Jeffrey L. Schwab*  
G. SCOTT SHANBERGER  
SHANBERGER & LANE  
LICENSE EXPIRATION DATE: 4/2/2018

**CONTACT**  
Jeffrey L. Schwab  
Tesseract Sites, Inc.  
401 Washington Ave, Suite 303  
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**OWNER**  
Mr. Dae Lee  
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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**

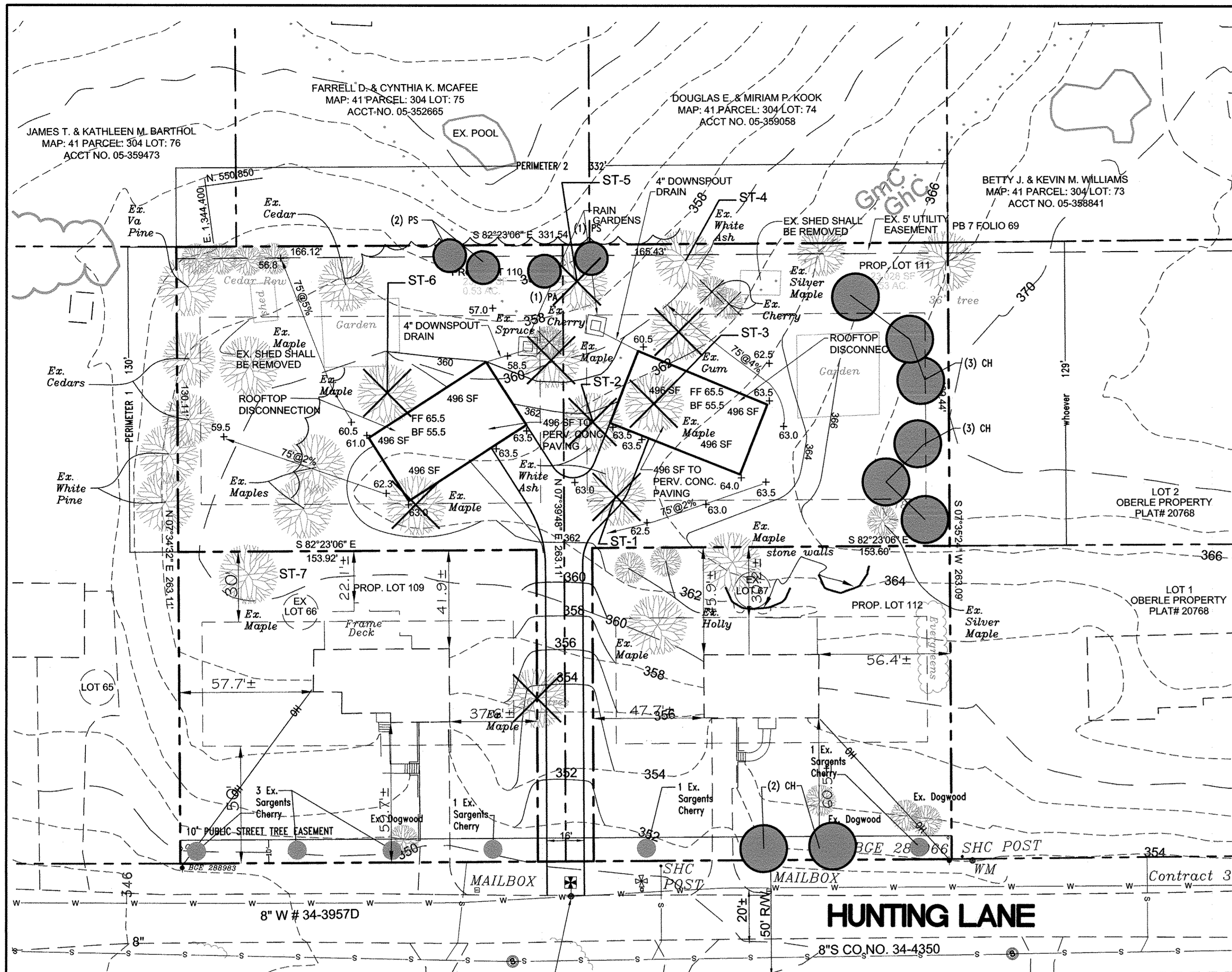
SUBDIVISION NAME: Holiday Hills SECTION/AREA: 4 LOT/PARCEL: 103-106

PLAN OR LOT: PBT Folio 69 Zone: 5 DAY/ZONE MAP: R-20 ELECTRICTY: 411 CENSUS TRACT: 518

BLANK CODE: 1-E22 SUBMIT CODE: 658100

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

**3 of 5**



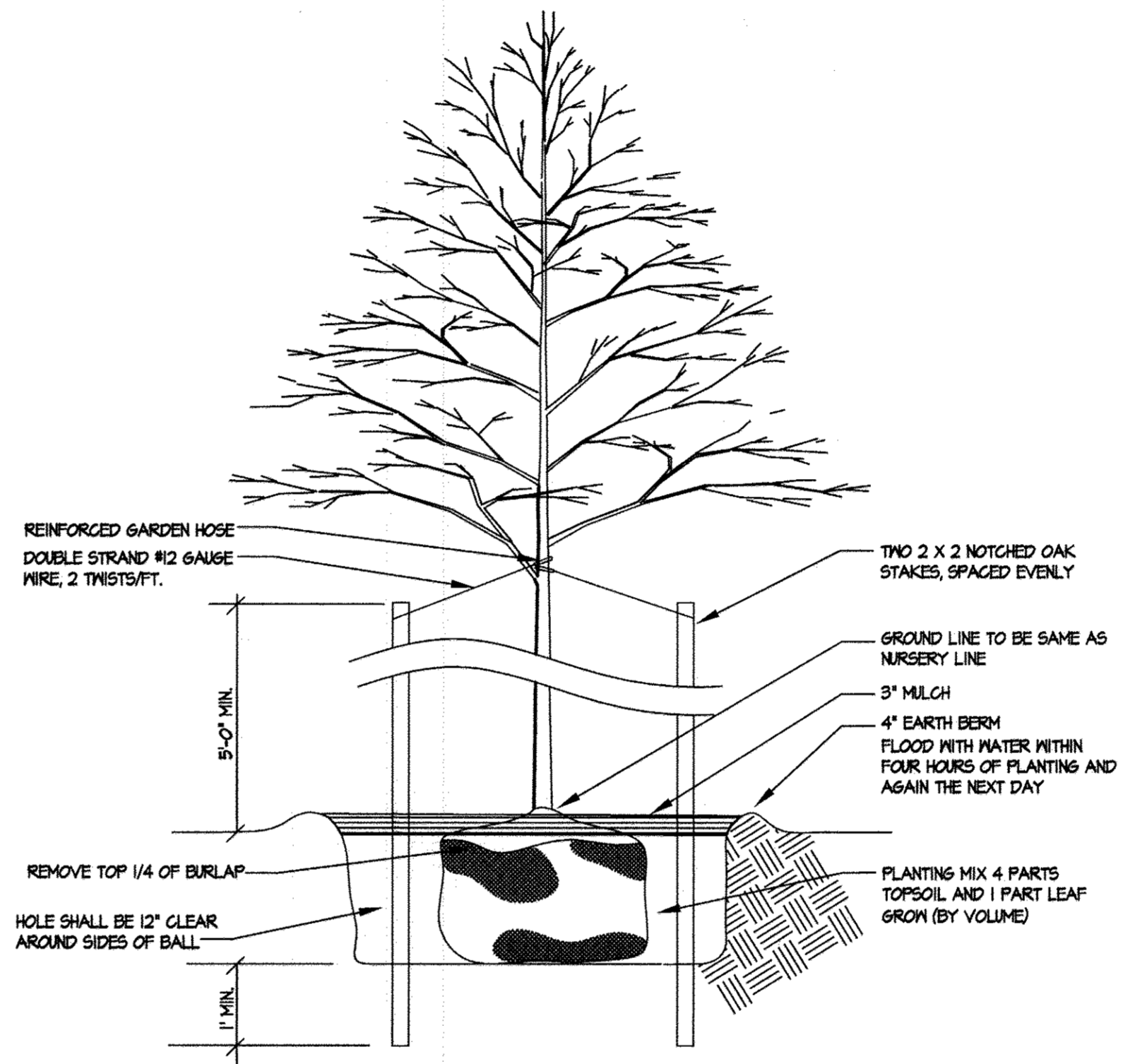
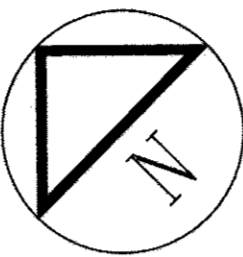
**PLANT LIST**

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

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.

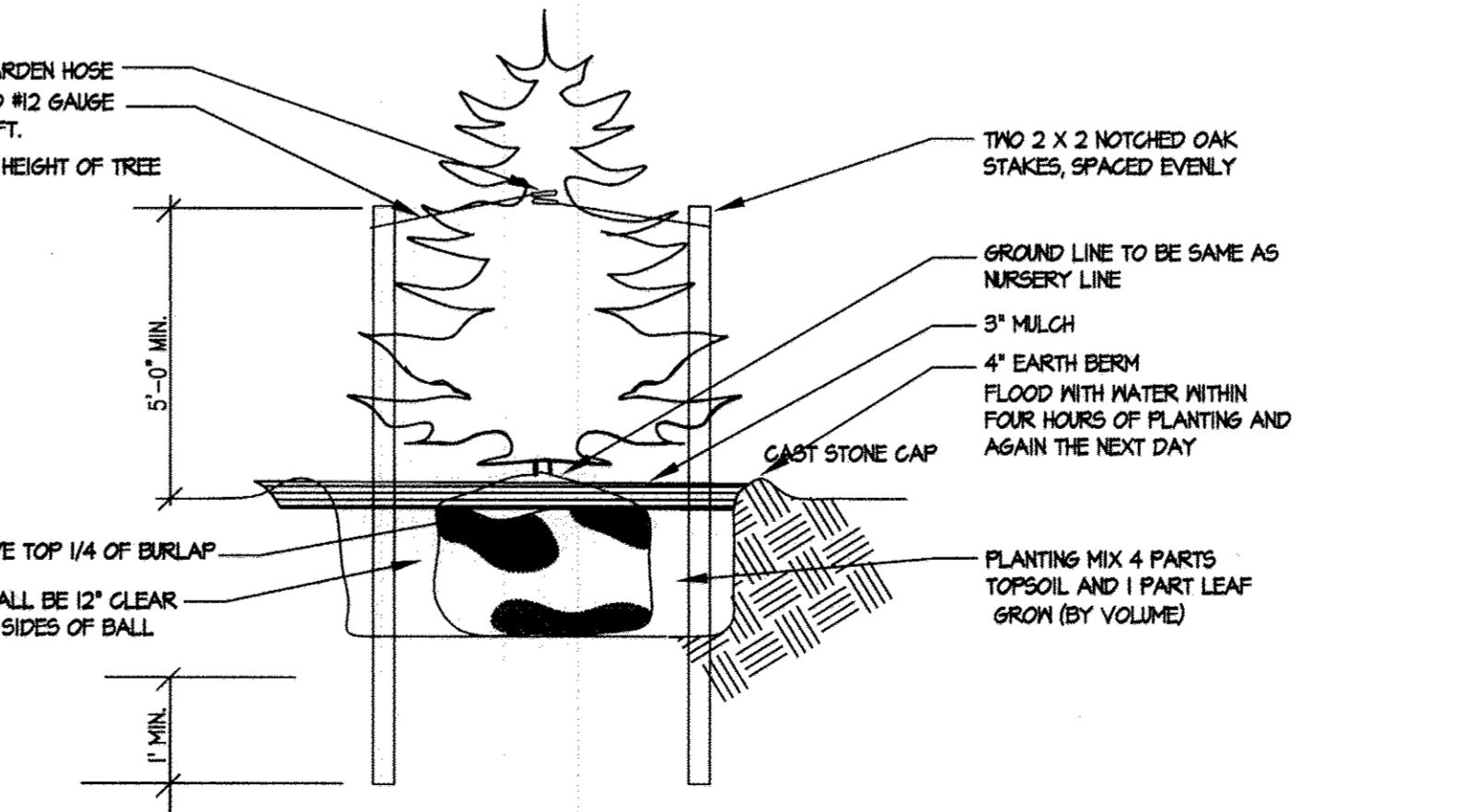
**LEGEND**

- 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



**EVERGREEN 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 lf
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 lg/med trees

Credit for Existing Trees to Remain (Onsite and within RW): 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	8"	White Ash	Fraxinus americana	Fair	Remove
ST-2	8"	White Ash	Fraxinus americana	Fair	Remove
ST-3	8"	Red Maple	Acer rubrum	Fair	Remove
ST-4	8"	White Ash	Fraxinus americana	Fair	Retain
ST-5	8"	Black Cherry	Prunus serotina	Poor	Remove
ST-6	8"	Red Maple	Acer rubrum	Poor	Remove
ST-7	8"	Red Maple	Acer rubrum	Poor	Retain

**Notes**

- Financial Surety for the required perimeter landscaping in the amount of \$2,400 is part of the developers agreement.
- 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 \$2400.00 (6 shade trees & 4 evergreen trees) will be posted with the developers agreement.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Wade Z. Smith*  
 Chief, Bureau of Highways  
 Date: 6-7-12

APPROVED: DEPARTMENT OF Planning & Zoning  
*Wade Z. Smith*  
 Chief, Division of Land Development  
 Date: 6/15/12

*Wade Z. Smith*  
 Chief, Development Engineering Division  
 Date: 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

OWNER  
 Mr. Dae Lee  
 10711 Hunting Lane  
 Columbia, MD 21044  
 ph: 410-292-8007

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

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

*Scott Shanaberger*  
 G. SCOTT SHANABERGER  
 SHANABERGER & LANE  
 LICENSE EXPIRATION DATE: 4/2/2018

**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.

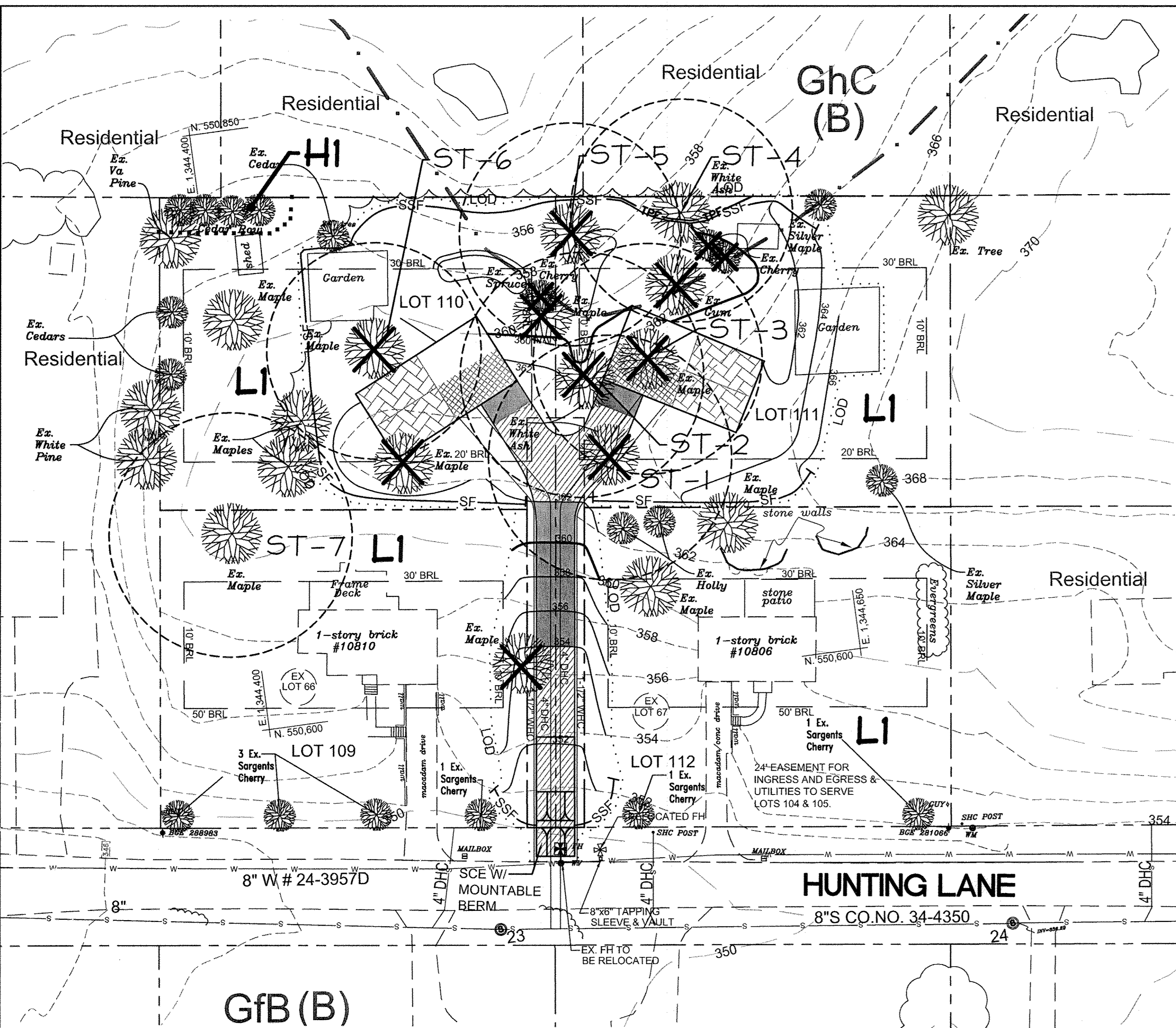
**Holiday Hills Section 4**  
 Lots 109-112  
 A Resubdivision of Holiday Hills,  
 Section 4, Lot 66 & 67, ECP 11-055  
**LANDSCAPING PLAN AND DETAILS**

SUBDIVISION NAME: Holiday Hills	SECTION/AREA: 4	LOT/PARCEL: 103-106
PLAN OR LOT: PB7 Folio 69 5	DATE: R-20 41	DATE: 5th
DRAWING CODE: 1-E22	SHEET CODE: 658100	

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

*Wade Z. Smith*  
 Wade Z. Smith  
 Chief, Development Engineering Division

**4 of 5**



**General FSD/FCP Notes**

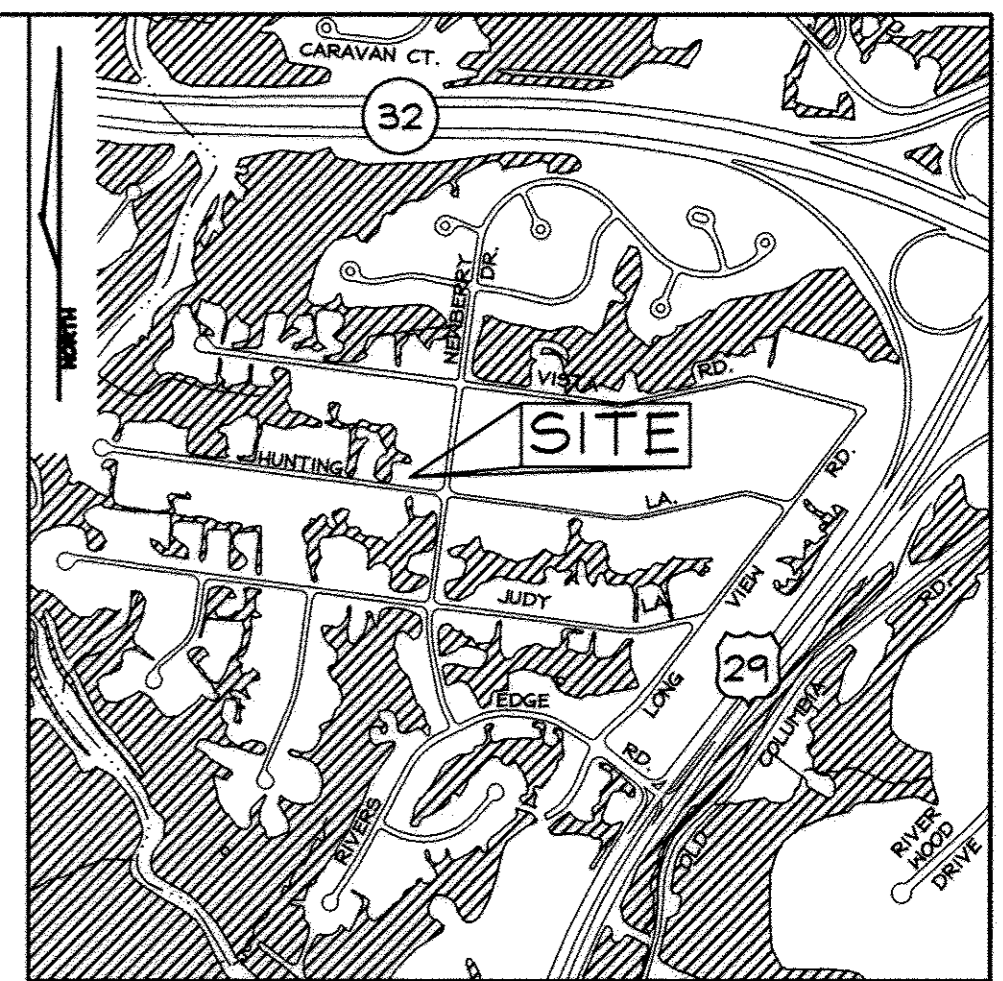
- Subject property zoned R-20 per 02/02/04 Comprehensive Zoning Plan.
- Total area of property = 2.00 ac.
- Existing 2 foot Topography on site based on field run topographic survey provided by Shaberger and Lane in March 2011.
- There are no steep slopes, State Champion Trees, streams, or wetlands on 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 Delineation Narrative**

This Forest Stand Delineation was prepared in accordance with the Howard County Forest Conservation Manual.

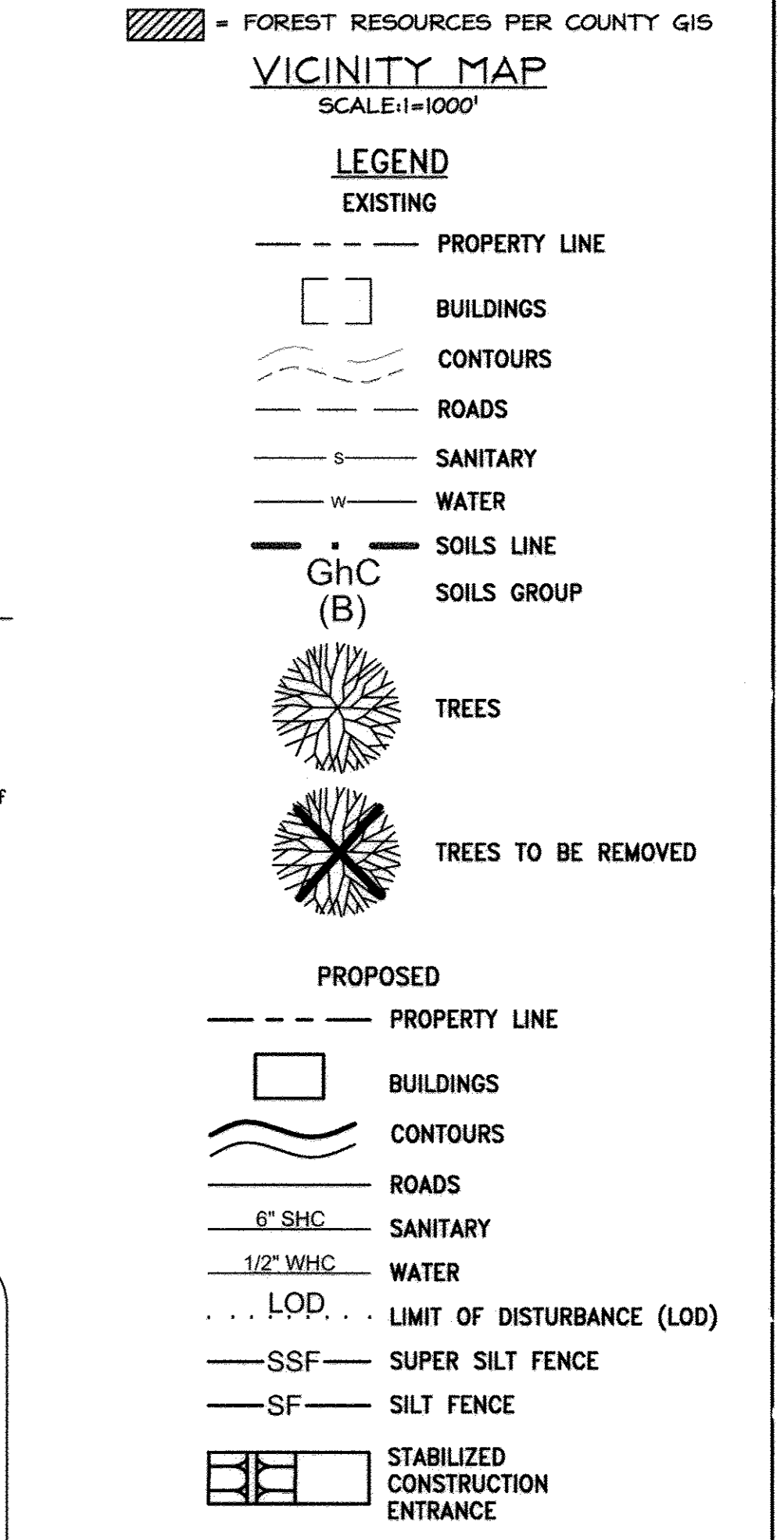
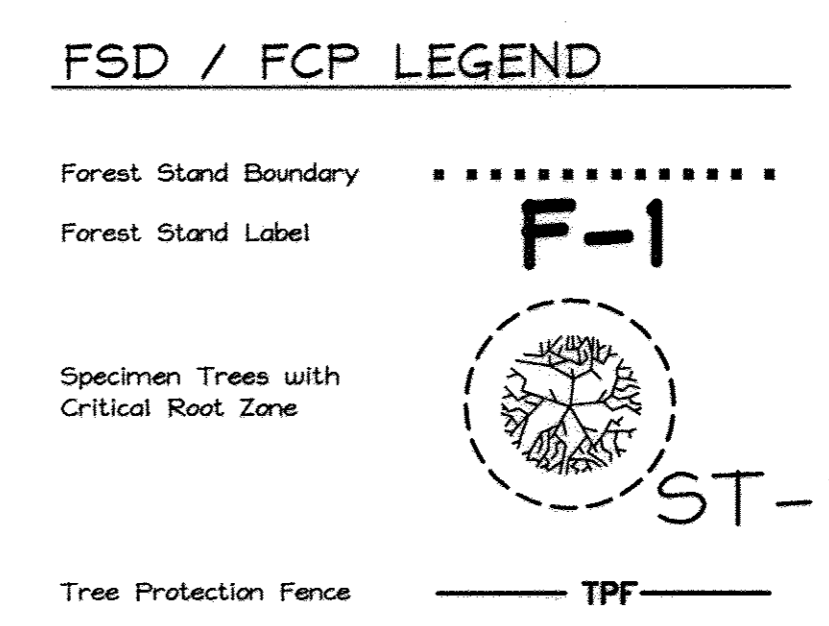
L1 The majority of the site is lawn containing scattered trees and shrubs around the existing house sites. There are seven specimen trees on the lawn area.

H1 There is a row of Red Cedar along the rear property line on the northwest side.



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	GENERAL CONDITIONS	
NO ON-SITE FOREST RESOURCES EXIST											
L-1	Lawn	1.98									
H-1	Hedge-row	0.02									

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
Breakeven Point	
I. Forest Retention Above Threshold with no Mitigation	0.04
J. Clearing Permitted without Mitigation	0.00
Proposed Forest Clearing	
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



**Soil Protection Zone Notes**

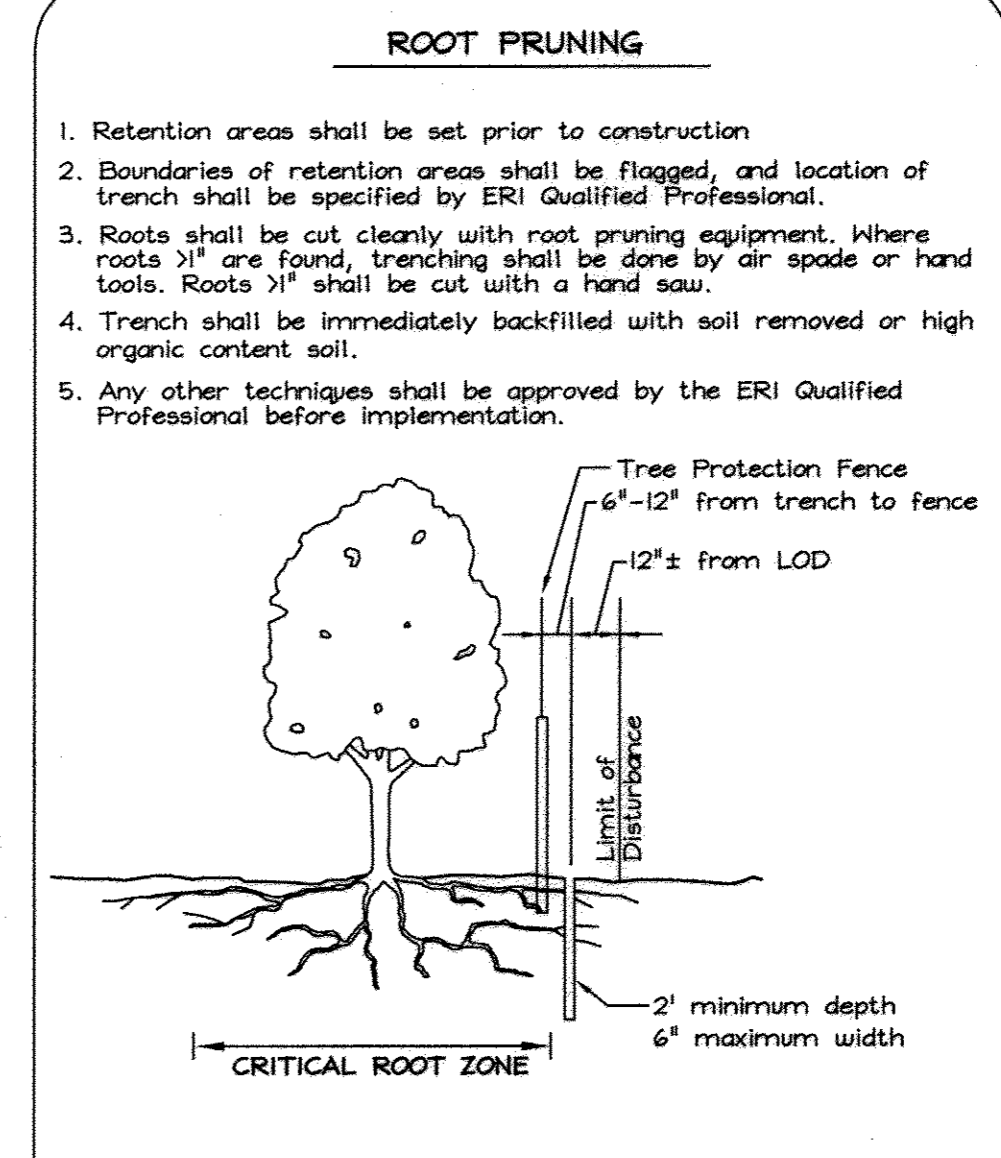
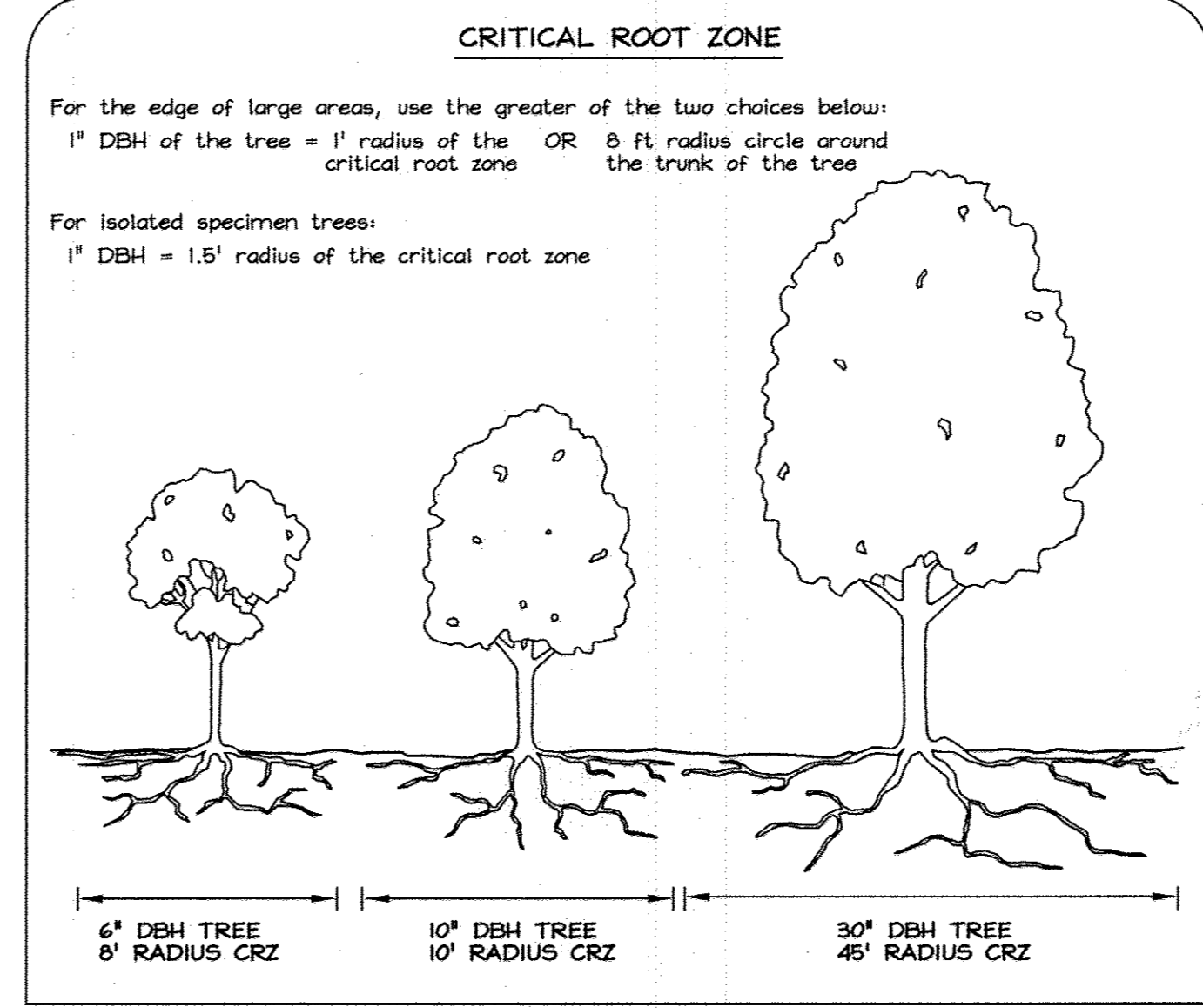
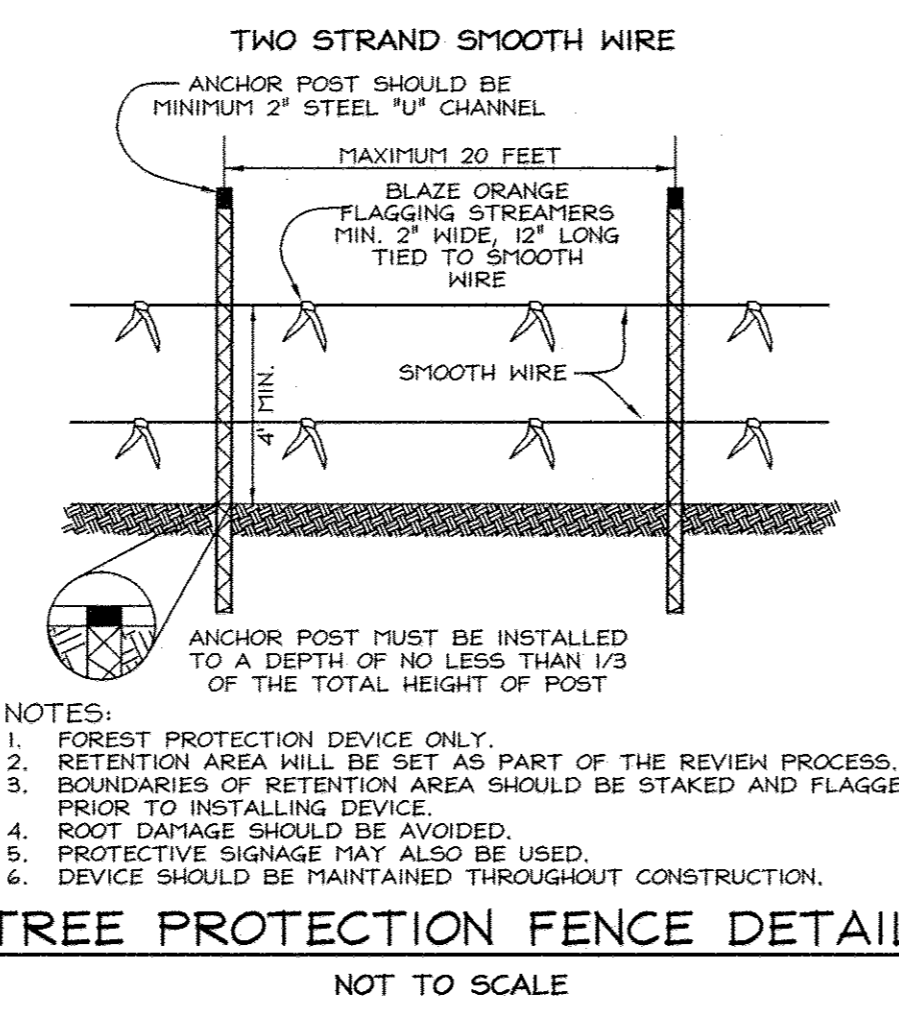
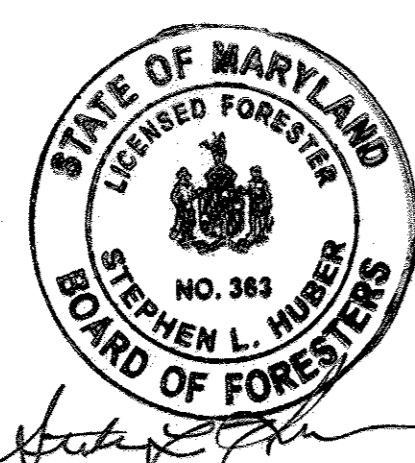
- The Soil Protection Zone shall include all areas contained outside the Limit of Disturbance.
- Where possible, the Soil Protection Zone shall extend to the drip line of specimen trees. For other groups of trees, the zone shall be the drip line or 40% of the height of the tree, whichever is greater.
- 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.



**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.

**SOILS INFORMATION**

GfB	Gladstone-Urban land complex, 0 to 8 percent slopes
GhC	Glencelg-Urban land complex, 8 to 15 percent slopes



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION 06/14/12 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 6/14/12 DATE

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 Ash	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 SGF.

**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).

FOREST STAND DELINEATION/FOREST CONSERVATION PLAN PREPARED BY:

**EXPLORATION RESEARCH, INC.**  
ENVIRONMENTAL CONSULTANTS  
LANDSCAPE ARCHITECTS  
6000 HOWARD LANE  
BELTSVILLE, MARYLAND 21076  
TEL: (410) 567-8210 FAX: (410) 796-1582

**OWNER**  
Mr. Doe Lee  
10717 Hunting Lane  
Columbia, MD 21044  
ph: 410-292-8007

**Tesseract**  
Tesseract Sites, Inc.  
401 Washington Ave. Suite 303  
Towson, Maryland, 21284  
p. 410.321.7600  
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/WORK: 4	LOT/PHASE: 103-106
PLAN OR L.P. P87 Folio 69	ZONE: R-20	DATE: 5/11/12
DATE: 5/11/12	DATE: 5/11/12	DATE: 5/11/12
DATE: 5/11/12	DATE: 5/11/12	DATE: 5/11/12

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

**5 of 5**

NOTE: THERE IS NO AS-BUILT INFORMATION PROVIDED ON THIS SHEET

DATE: 4/12/12