

GENERAL NOTES

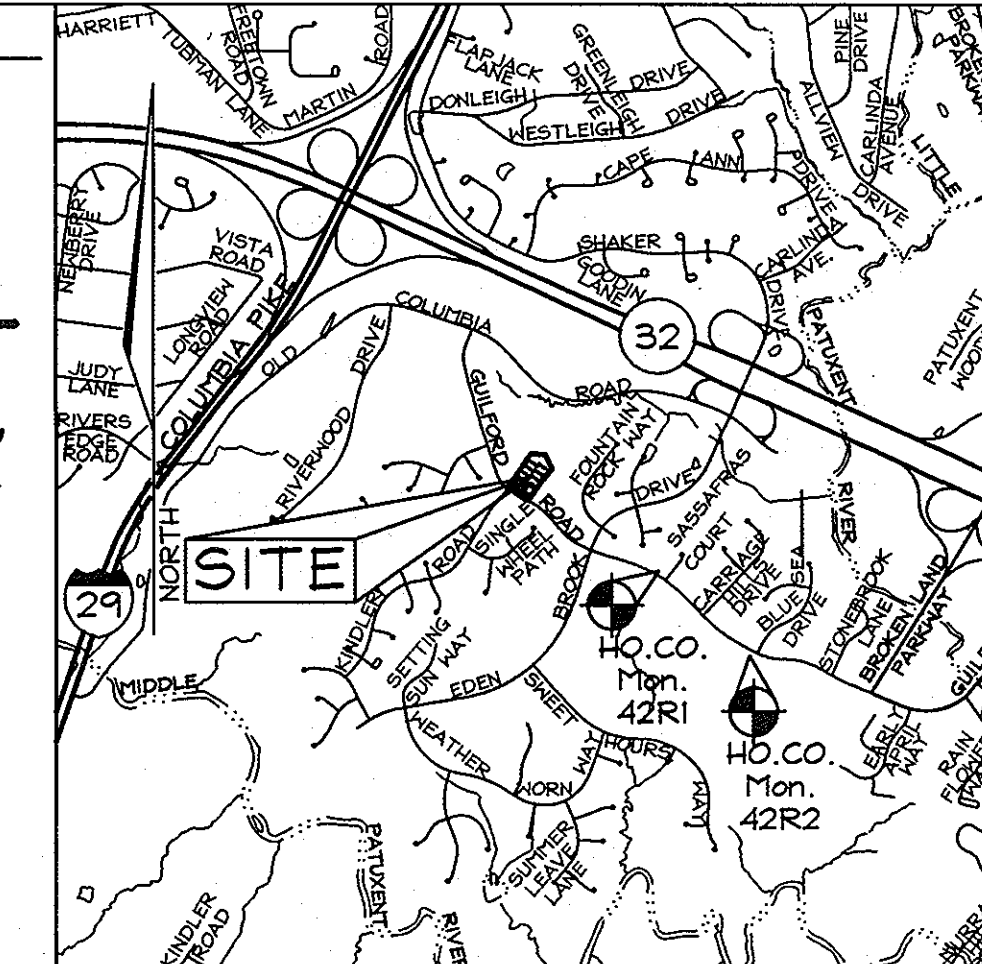
- Subject property Zoned "R-12" per 02/02/04 Comprehensive Zoning Plan and per the "Comp. Lite" Zoning Regulation Amendments effective 7/28/06.
- Public water and sewer are to be utilized. Sewer and Water Contract R-3629.
- Sketch plan, S-06-014, approved on June 15, 2007.
- This site is located within the metropolitan district.
- Soils map no. 29.
- Gross area of site: 2,510 ac.±
- Number of proposed buildable lots: 7
- Area of proposed buildable lots: 1,636 ac.±
- Number of proposed open space lots: 2
- Area of proposed open space lots: 0,867 ac.±
- Open space requirements:
 - Open space required (30% gross area of site- minimum lot size 8,400sf.): 2,510 ac.± x 0.30=0,753 ac.±
 - Open space provided: 0,867 ac.± (Credited) 0,000 ac.± (Not Credited)
- Area of right of way to be dedicated to Howard County Maryland: 0.007 Ac.
- The on site existing topography was field run by FSH Associates on September 2007. Off Site Topography is based on aerial survey with two foot contour intervals prepared by Howard County dated 2004.
- Boundary shown is based on Field Run Boundary Survey by FSH Associates on September 2007.
- A.P.F.O. Traffic Study prepared by Street Traffic Studies Ltd. approved on June 15, 2007.
- The wetlands delineation study for this project was prepared by Exploration Research Inc., and approved on June 15, 2007.
- The Forest Stand Delineation and report for this project was prepared by Exploration Research Inc., and approved on June 15, 2007.
- There are no floodplains, steep slopes, streams, historic structures or cemeteries on-site.
- Forest Conservation Obligations will be met partly on-site and partly by fee-in-lieu payment.
- Perimeter Landscape Obligations in accordance with Section 16.124 of the Landscape Manual shall be shown under the Final plan submission.
- Topography along lines of sight was field run by FSH Associates on or about January 2006.
- Stormwater management quantity & quality is provided as necessary in accordance with the 2000 Stormwater Management Manual. A pocket sand filter facility will be used to treat CpV and WqV. The recharge volume to be treated through the grass channel credit. The stormwater management facility shall be H.O.A owned and maintained.
- The project is in conformance with the latest Howard County Standards unless waivers have been approved.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based on the Maryland State Plane Coordinate System. Howard County Monument Nos. 42R1 and 42R2 were used for this project.
- Existing utilities along Guilford Road are based on field run survey by FSH Associates on or about January, 2006.
- The geotechnical report for this project was prepared by Herbst/ Benson & Associates, dated October 11, 2007.
- This plan is subject to a design manual waiver from section 2.5.2.H and Figure 2.17 of Design Manual Volume III to allow the use of stopping sight distance on a Major Collector and higher classification roadway. Waiver was approved on 8/22/06.
- A waiver from section 5.4.B.6 of Howard County Design Manual, Volume II, Water and Sewer, to allow the sewer line to be closer than 25 feet but no closer than 15 feet was approved on May 28, 2008.
- A waiver from Section 2.6.A of Howard County Design Manual, Volume III, Roads and Bridges, to allow a Use-In-Common driveway to serve more than six (6) dwelling units (7 dwelling units approved), was approved on December 17, 2008.
- Note - Development Engineering Division has agreed to allow water quality(WQv) and channel protection(CpV) to be treated jointly within the proposed pocket sand filter.

PRELIMINARY PLAN KINGS COVE

A RESUBDIVISION OF LOTS 4 AND 5-A, PLAT NUMBERS PB 7/F 71 AND PB 026/F 039 HOWARD COUNTY, MARYLAND

LEGEND

- Existing contours
- Proposed Contour
- Existing Spot Elevation
- Proposed Spot Elevation
- Direction of Flow
- Soils Line
- Existing Trees / Proposed Trees
- Existing Fence Line
- Existing Perc Test (Passed)
- Existing Utility Poles
- Proposed House
- Existing Stream Buffer
- Existing Wetland Buffer
- Existing Wetland
- Wetland
- Proposed Light Pole
- Super Silt Fence
- Super Diversion Fence
- Limit of Disturbance
- Earth Dike



VICINITY MAP
SCALE: 1"=200'
ADC MAP 19 GRID F1

BENCHMARKS

Coordinates based on NAD83, Maryland coordinate system as projected by Howard County geodetic control stations no. 42R1 and no. 42R2 denotes approximate location (see vicinity map).

Sta. 42R1 N 547,820.2380 E 1,351,171.5866 E1: 375.871
Sta. 42R2 N 546,946.8001 E 1,352,118.5607 E1: 331.525

MINIMUM LOT SIZE CHART

LOT NUMBER	GROSS AREA (SF)	PIPESTEM AREA (SF)	MINIMUM LOT SIZE (SF)
2	9,035±	494±	8,541±
3	9,148±	510±	8,638±
4	9,286±	800±	8,486±
5	10,252±	1,069±	8,183±
7	11,046±	1,202±	9,844±
8	9,553 ±	907±	8,646±
9	13,147 ±	1,501±	11,646±

SHEET INDEX

DESCRIPTION	SHEET No.
Cover Sheet	1 of 7
Preliminary Guilford Road Improvements	2 of 7
Preliminary Plan	3 of 7
Preliminary Grading, Landscaping, Sediment & Erosion Control & Soils Plan	4 of 7
Preliminary Storm Drain Drainage Area Map	5 of 7
Preliminary Forest Conservation Plan	6 of 7
Preliminary Forest Conservation Notes and Details	7 of 7

CENTERLINE ROAD CURVE DATA

ROAD NAME	CURVE No.	RADIUS	LENGTH	DELTA	TANGENT	CHD BEAR	CHD LEN
Private Driveway	C1	45.00'	31.22'	39°45'14"	16.27'	N06°14'17"E	30.60'
	C2	45.00'	38.67'	49°13'54"	20.62'	S09°47'15"W	37.49'

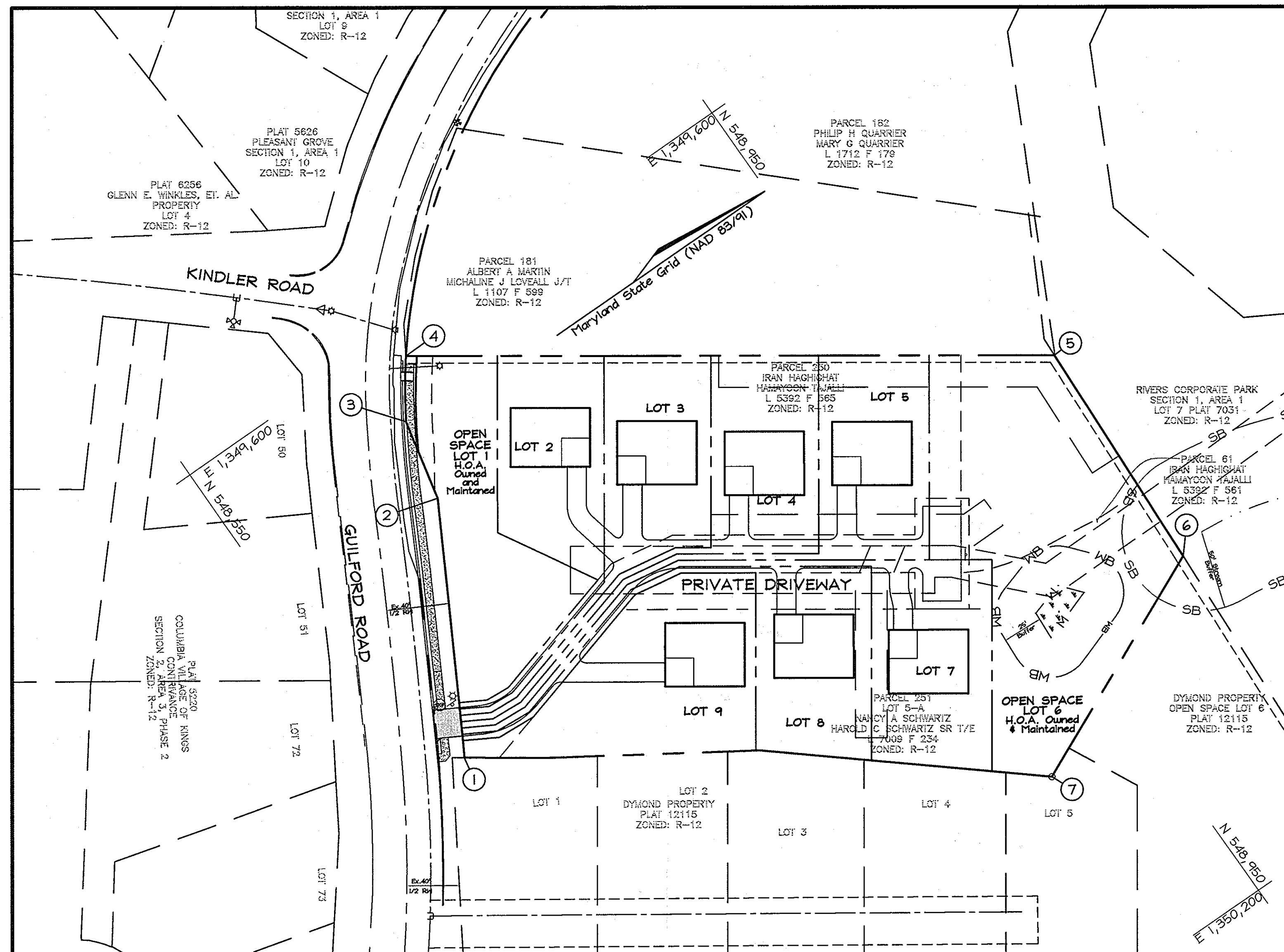
COORDINATE TABLE

POINT	NORTHING	EASTING
1	548,589.1467	1,349,845.4863
2	548,669.3027	1,349,701.2651
3	548,680.4389	1,349,650.2668
4	548,704.2069	1,349,616.1611
5	549,038.5153	1,349,849.2022
6	549,032.0114	1,349,999.7327
7	548,884.8679	1,350,066.5653

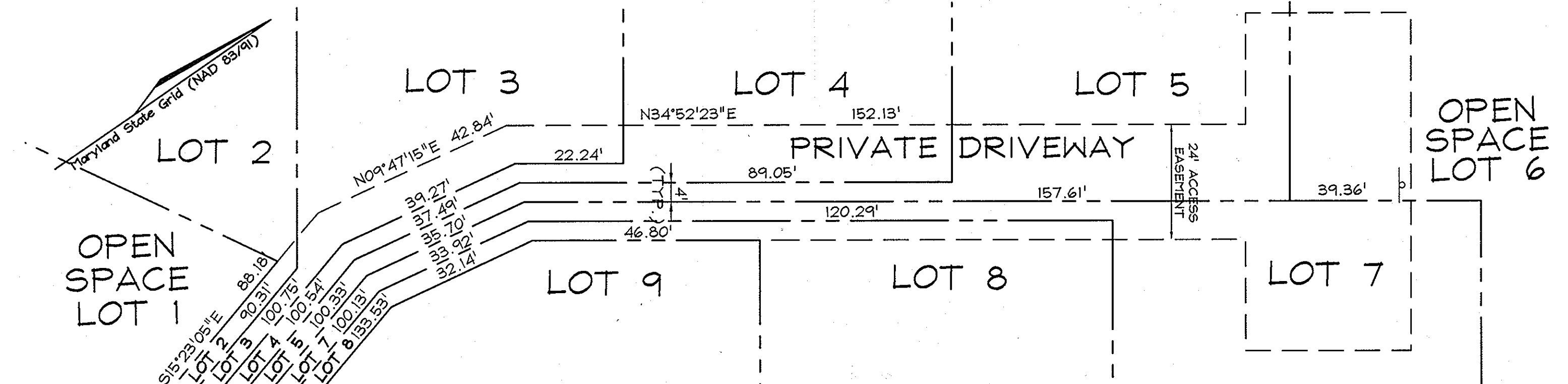
STREET LIGHT TABLE

STREET NAME	LOCATION	OFFSET	FIXTURE TYPE
PRIVATE DRIVEWAY	± Sta. 0+35.57	16± Left	14' High Black Fiberglass pole, 100 watt HPS or 150 watt HPS, post top: Premier or Acron

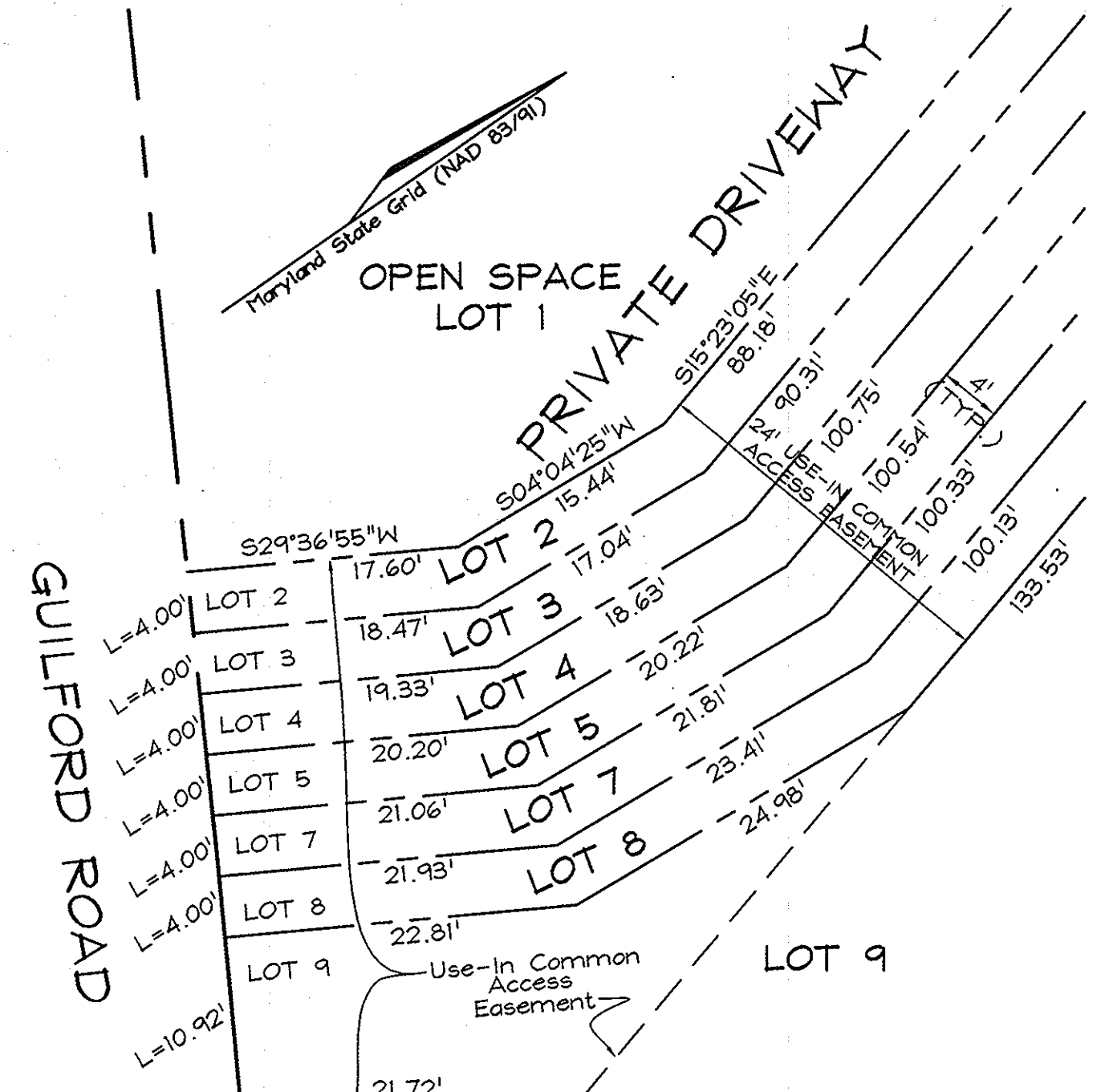
*Note: ☆ Denotes Street Light



LOCATION MAP
SCALE: 1"=50'



PARTIAL LOT PIPE STEM DETAIL
SCALE: 1"=20'



FRONT FOOT DIMENSION ENLARGEMENT DETAIL
SCALE: 1"=10'

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY

M. A. C. [Signature] 2/26/09
PLANNING DIRECTOR DATE

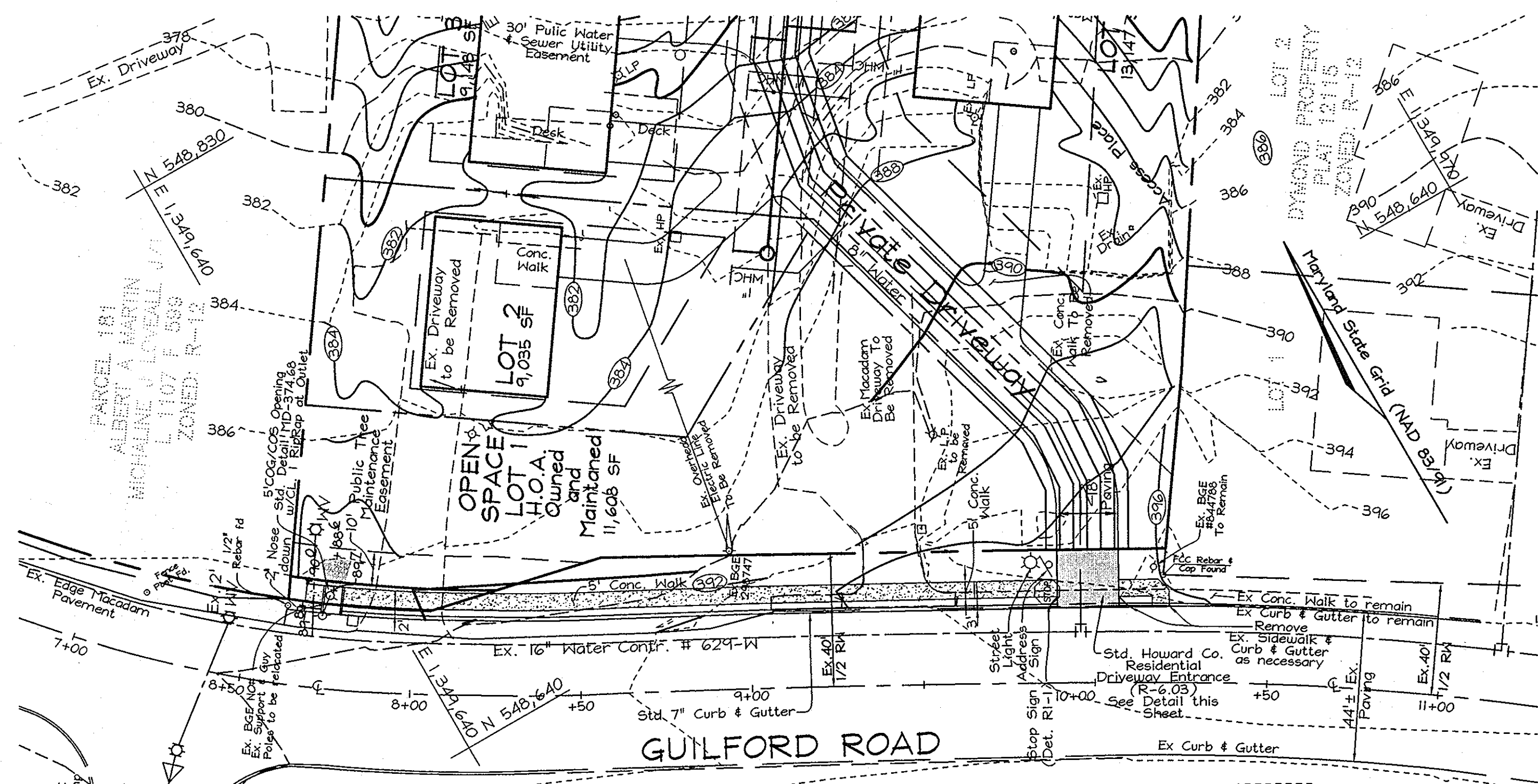
OWNER/DEVELOPER
CMC Land, LLC
11710 Stonegate Lane
Columbia, MD 21044
Attn: Ms. Cindy Delzoppo
443-250-6395

COVER SHEET
KINGS COVE
(A RESUBDIVISION OF LOTS 4 AND 5-A, PLAT NUMBERS PB 7/F 71 AND PB 026/F 039)
ZONING R-12
TAX MAP 42 GRID 7 PARCELS 61, 250 & 251
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

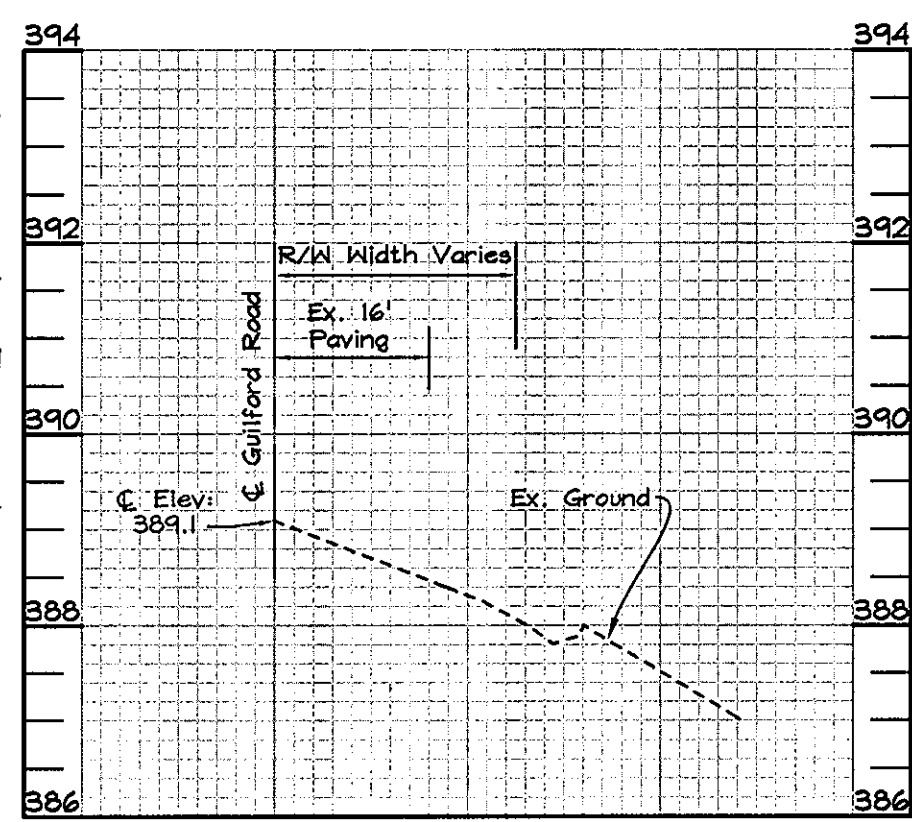
FSH Associates
Engineers Planners Surveyors
6339 Howard Lane, Elkridge, MD 21075
Tel: 410-567-5200 Fax: 410-798-1582
E-mail: info@fshri.com

DESIGN BY: MLT
DRAWN BY: HS
CHECKED BY: ZYE
SCALE: As Shown
DATE: Feb. 2, 2009
H.O. No.: 3394
SHEET No.: 1 OF 7

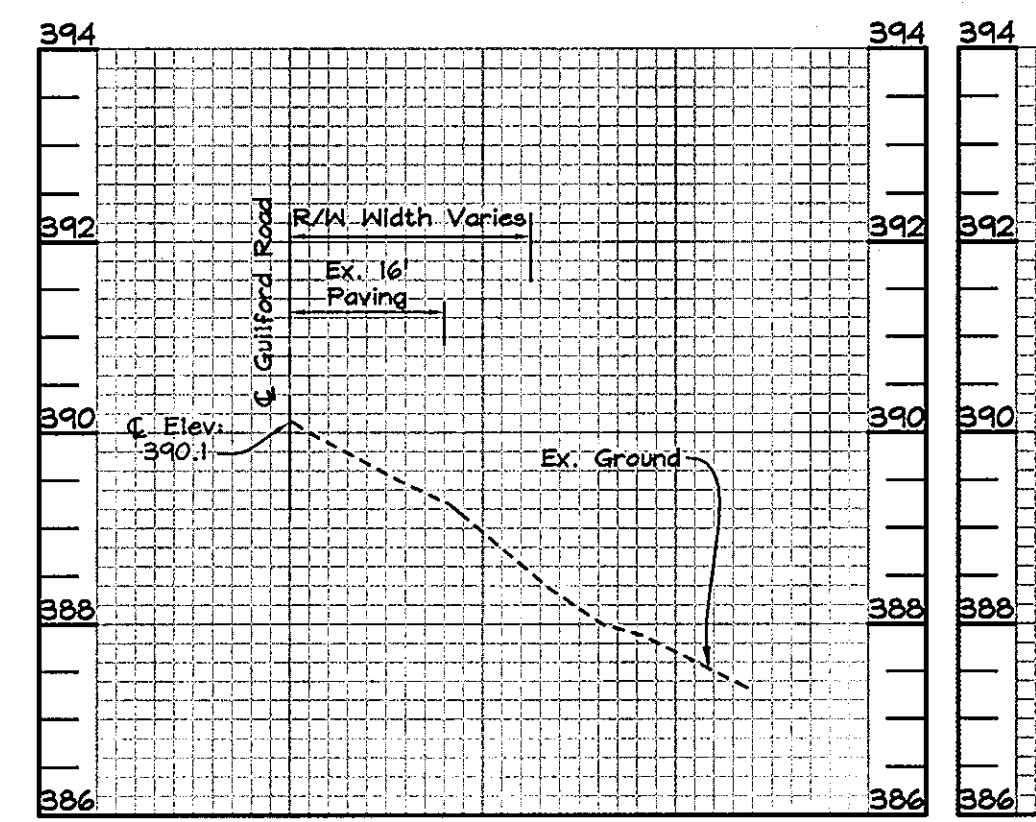
PROFESSIONAL CERTIFICATION
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #34689, Expiration Date: 07/08/2009.



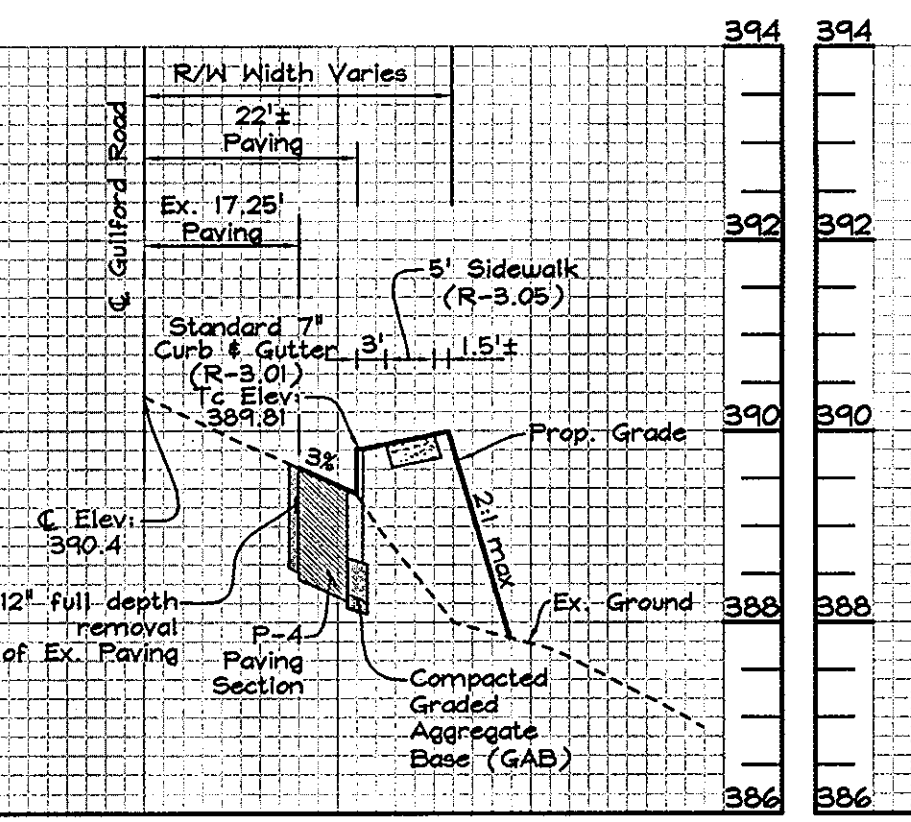
PLAN VIEW
SCALE: 1"=30'



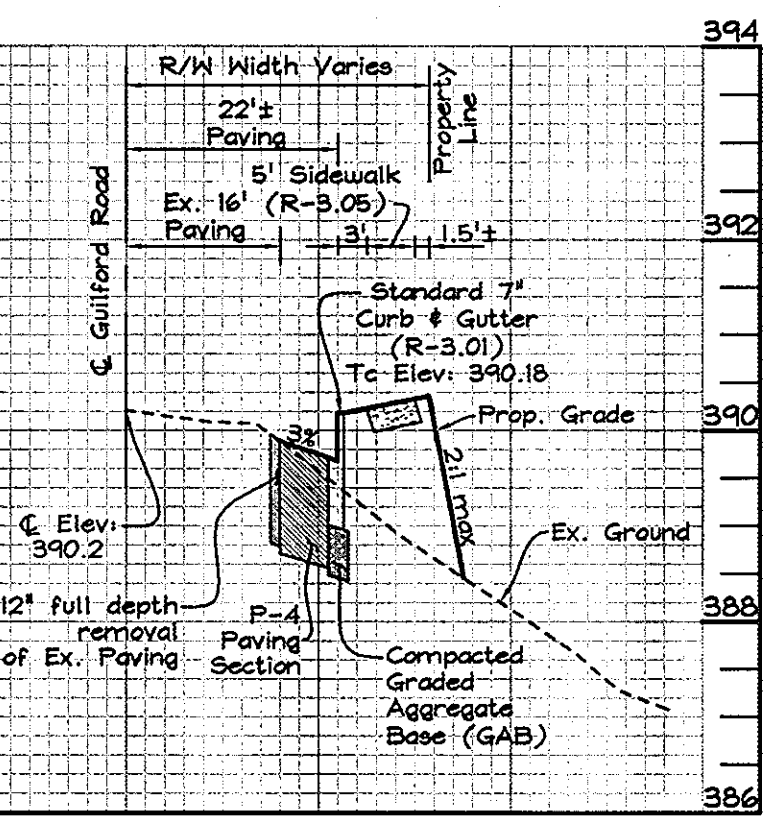
STATION: 7+00
SCALE- HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



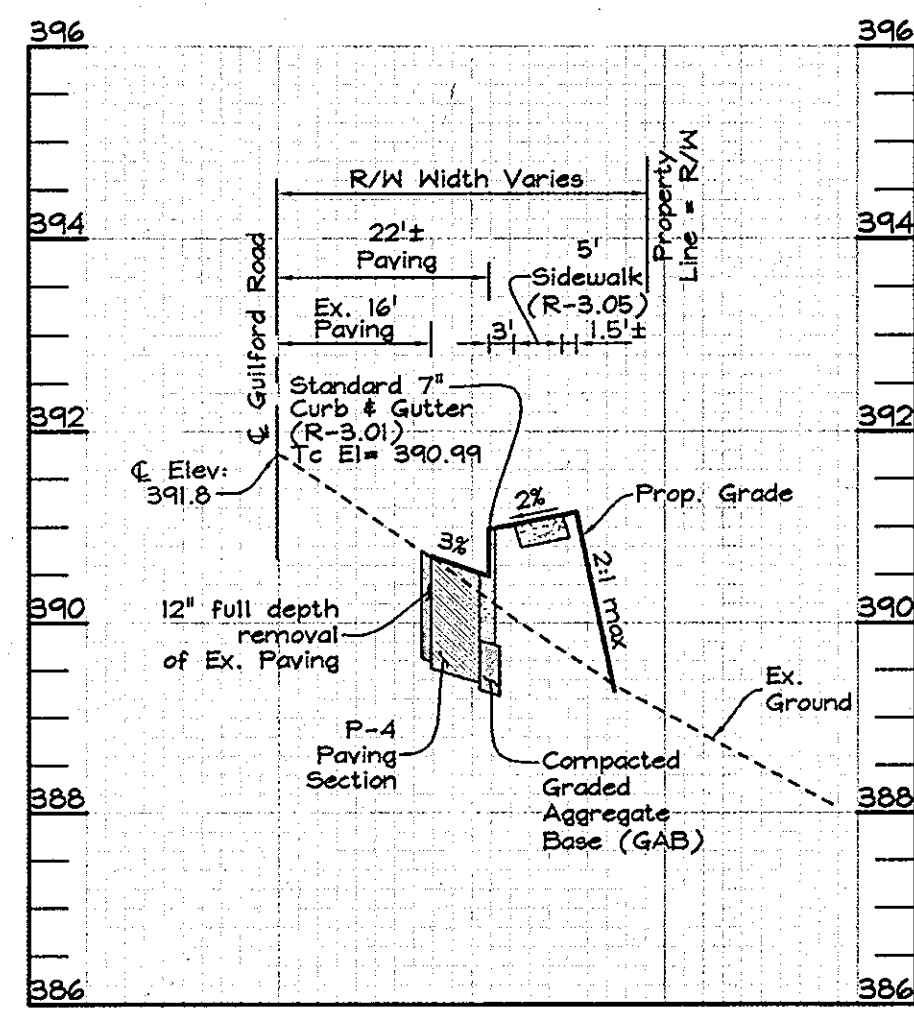
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SCALE- HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



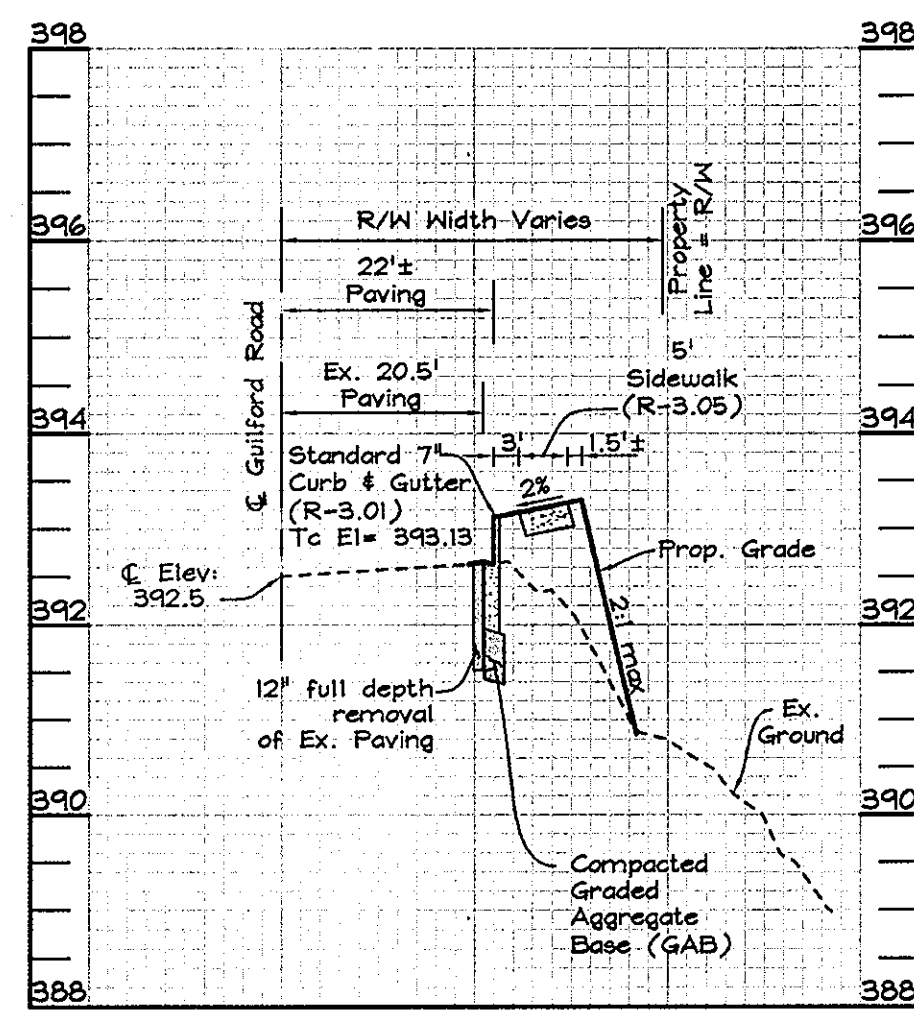
STATION: 7+66.52±
at West Property Line
SCALE- HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



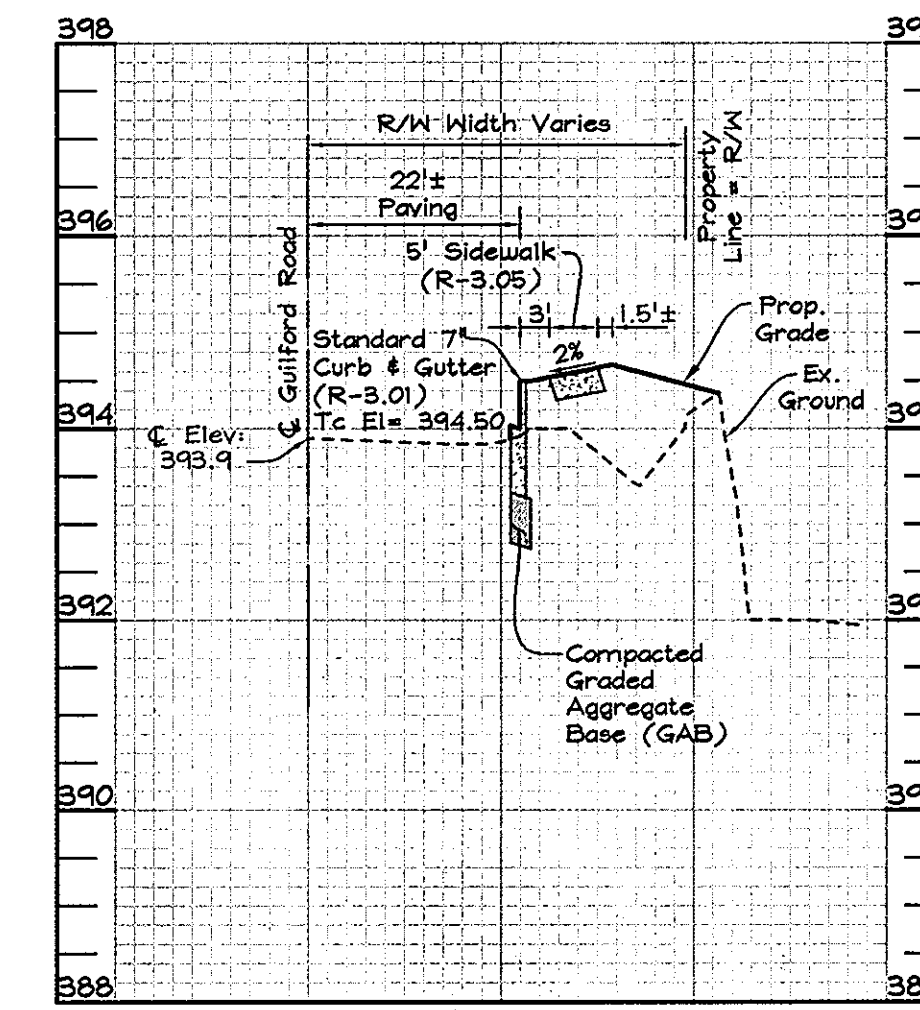
STATION: 8+00
SCALE- HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



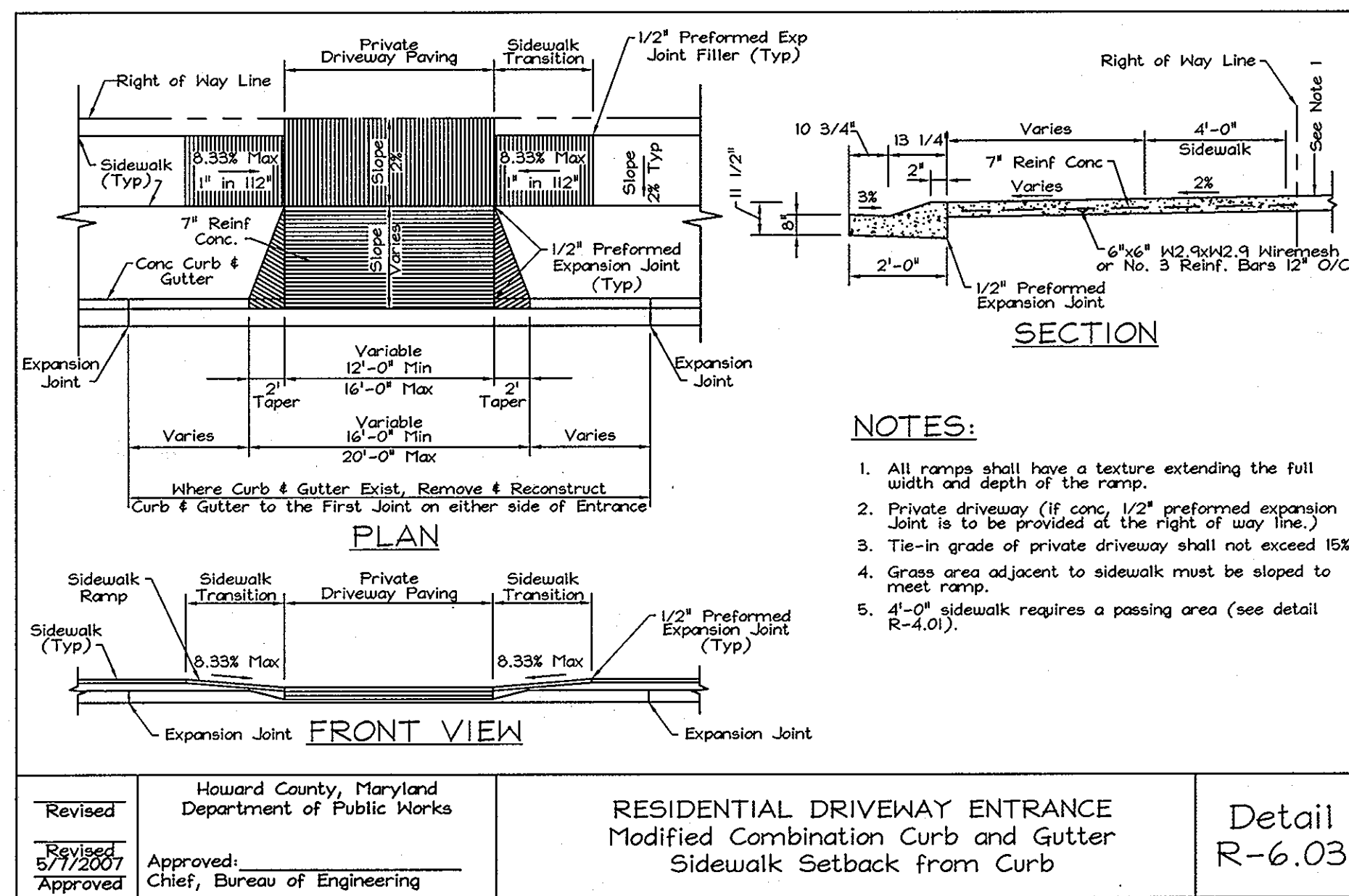
STATION: 8+50
SCALE- HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



STATION: 9+00
SCALE- HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



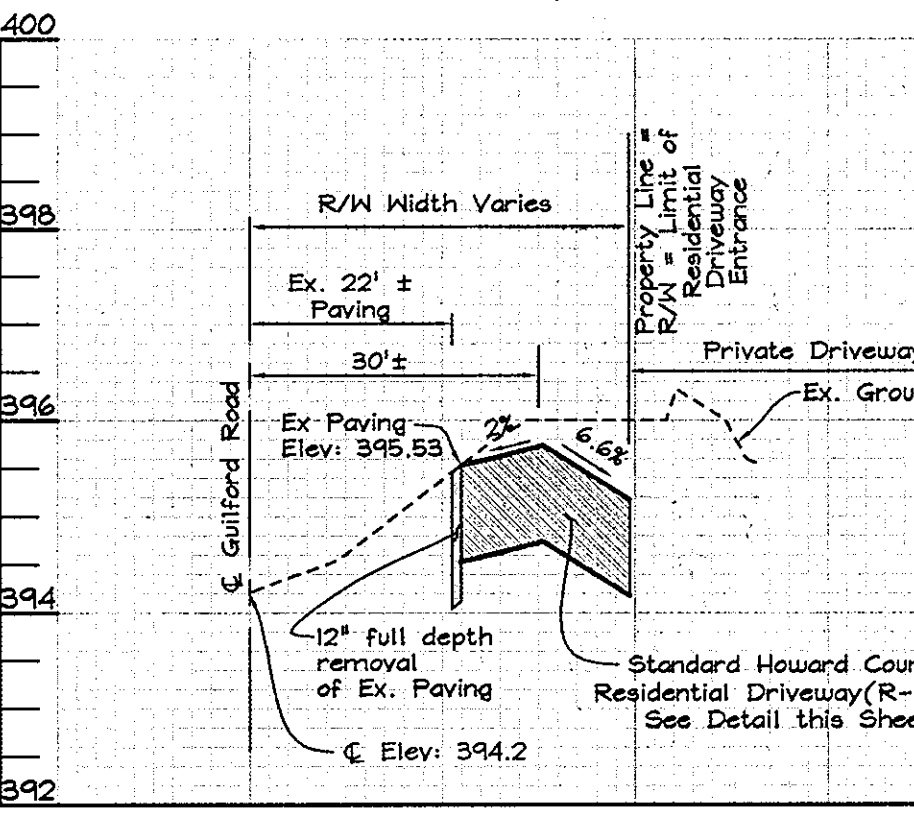
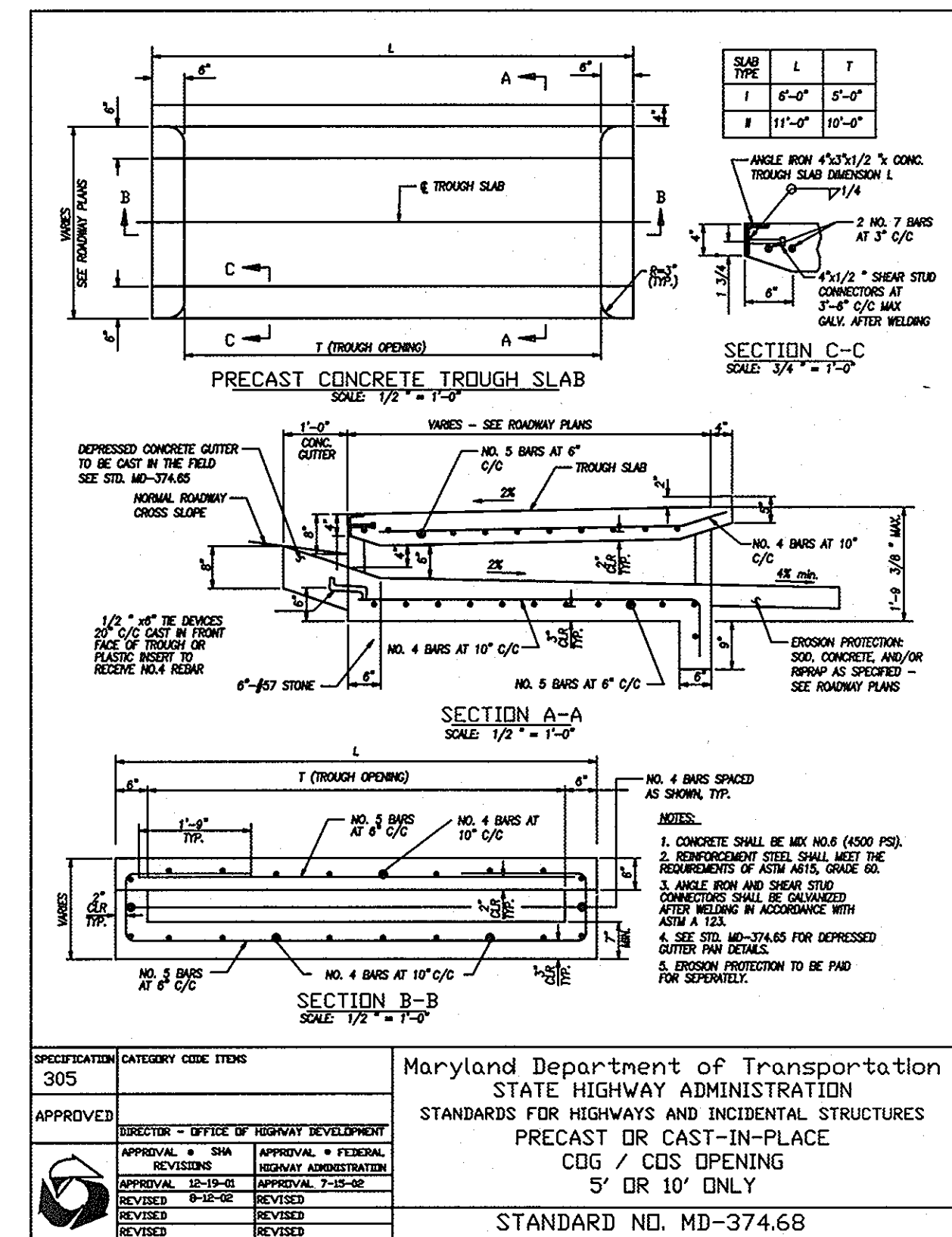
STATION: 9+50
SCALE- HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



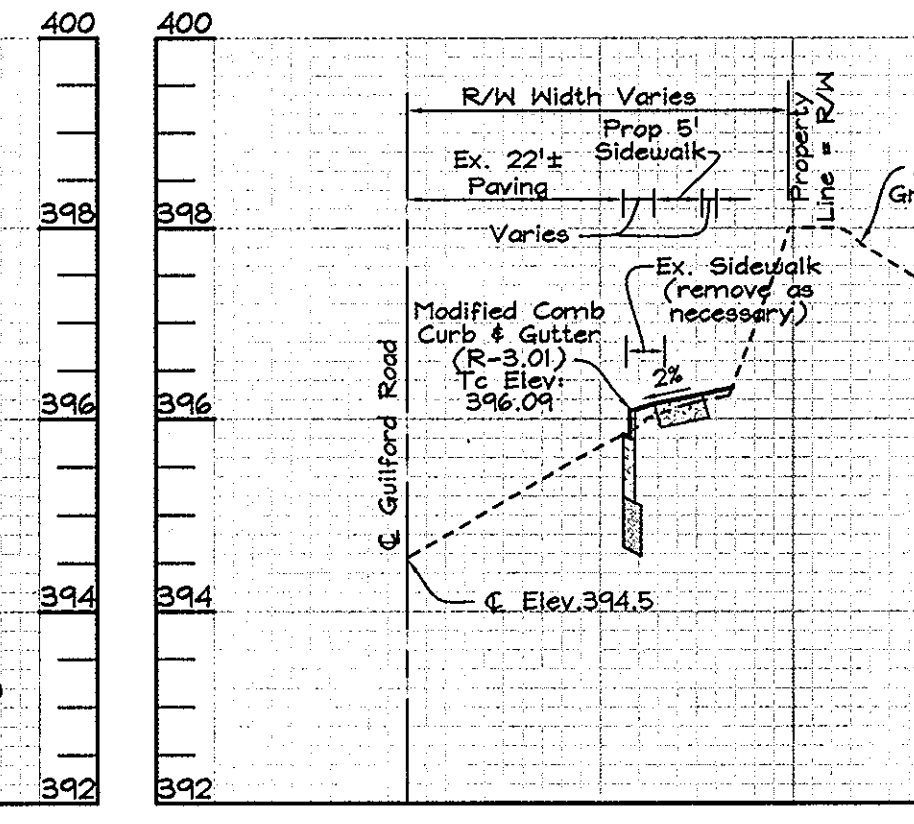
NOTES:

- All ramps shall have a texture extending the full width and depth of the ramp.
- Private driveway (if conc. 1/2" preformed expansion joint is to be provided at the right of way line).
- Tie-in grade of private driveway shall not exceed 15%.
- Gross area adjacent to sidewalk must be sloped to meet ramp.
- 4" of sidewalk requires a passing area (see detail R-4.01).

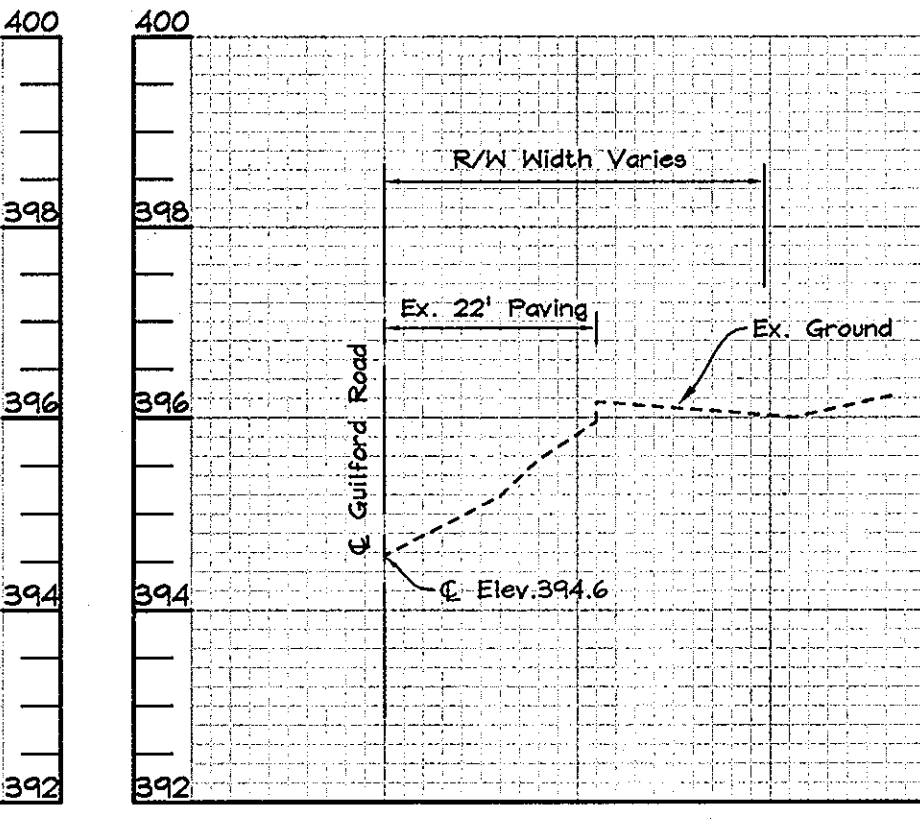
Revised: 5/9/2007 Approved: Howard County, Maryland Department of Public Works
Approved: Chief, Bureau of Engineering
RESIDENTIAL DRIVEWAY ENTRANCE
Modified Combination Curb and Gutter
Sidewalk Setback from Curb
Detail R-6.03



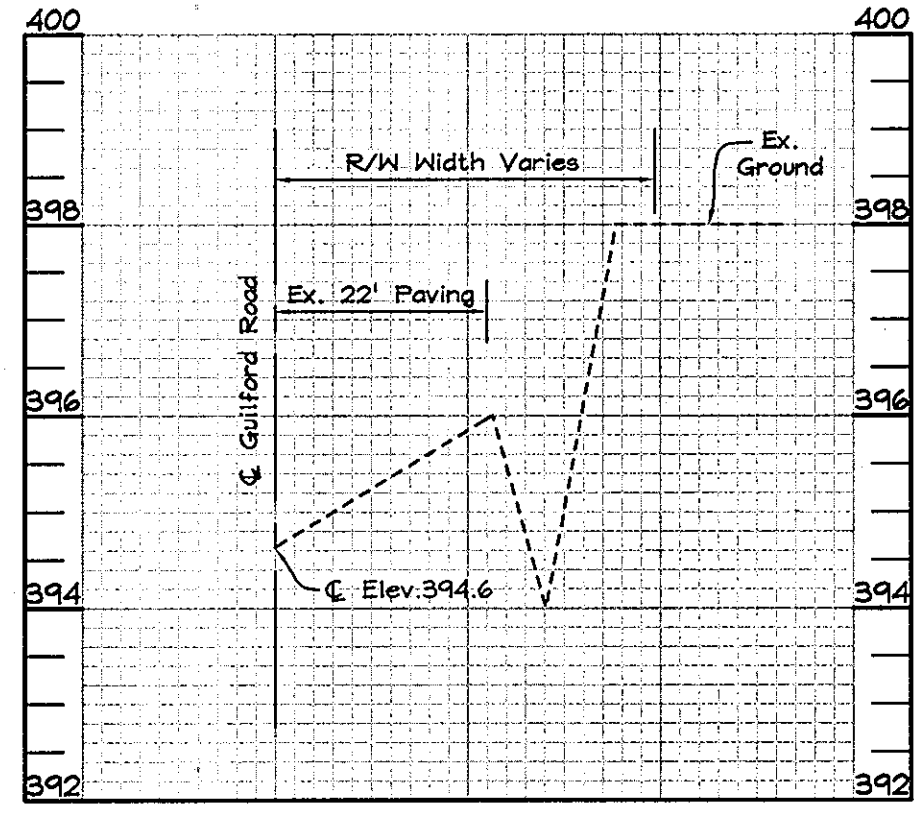
STATION: 10+00
SCALE- HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



STATION: 10+19.67±
at East Property Line
SCALE- HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



STATION: 10+50
SCALE- HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



STATION: 11+00
SCALE- HORIZONTAL: 1"=20'
VERTICAL: 1"=2'

CROSS SECTIONS FOR ROAD IMPROVEMENTS ON GUILFORD ROAD
STA. 7+00 - STA. 11+00

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY
PLANNING DIRECTOR
DATE: 2/26/09

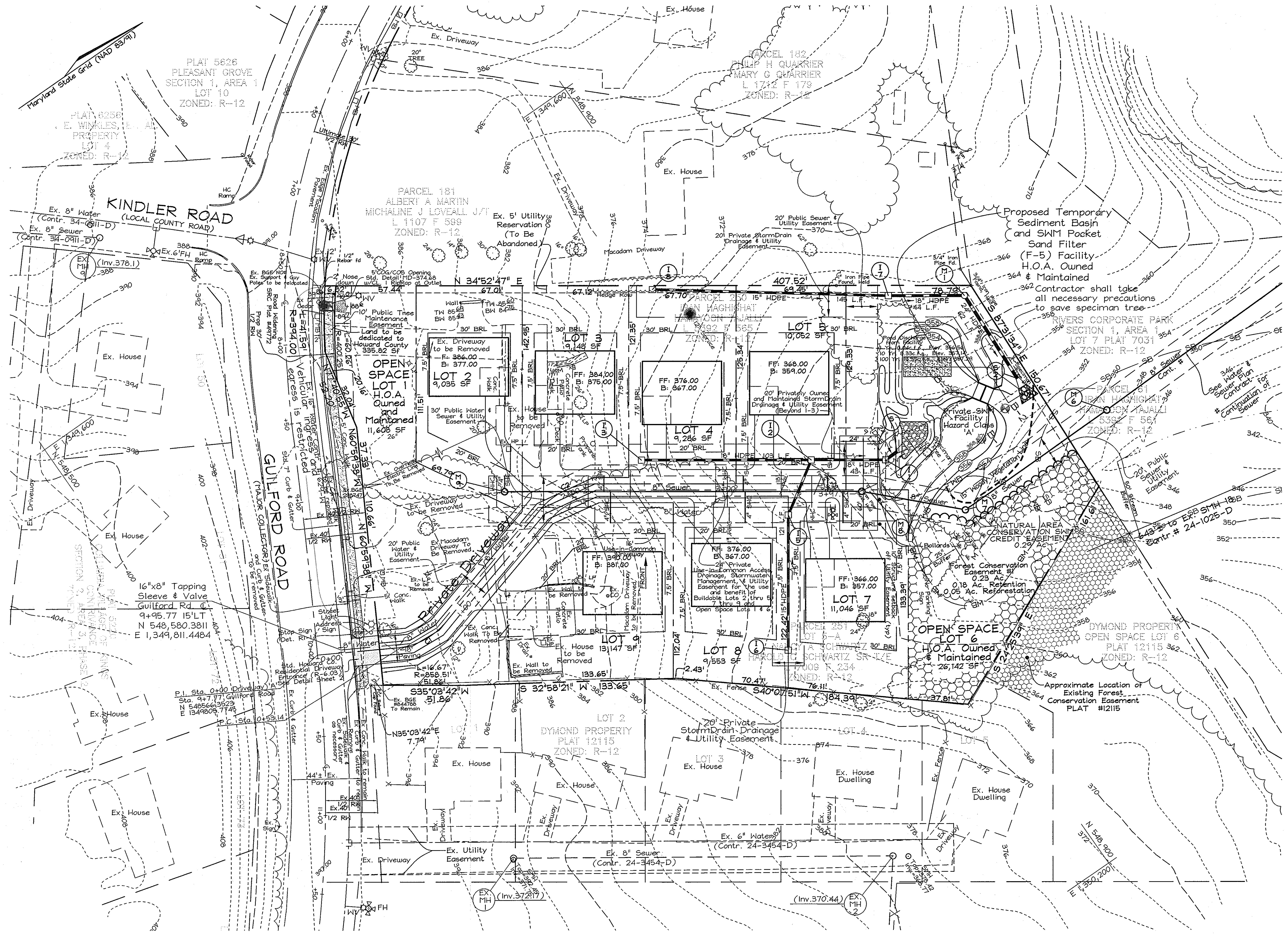
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OWNER/DEVELOPER
CMC Land, LLC
11710 Stonegate Lane
Columbia, MD 21044
Attn: Ms. Cindy Deizoppo
443-250-6395

PRELIMINARY ROAD IMPROVEMENTS
KINGS COVE
(A RESUBDIVISION OF LOTS 4 AND 5-A, PLAT NUMBERS PB 7/F 71 AND PB 026/F 039)
ZONING R-12
TAX MAP 42 GRID 7 PARCELS 61, 250 & 251
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: MLT
DRAWN BY: HS
CHECKED BY: ZYE
SCALE: As Shown
DATE: Feb. 2, 2009
M.O. No.: 3394
SHEET No.: 2 OF 7

FSH Associates
Engineers Planners Surveyors
8339 Howard Lane, Elkridge, MD 21075
Tel: 410-567-5200 Fax: 410-796-1562
E-mail: info@fsh.com



PLAN VIEW
SCALE: 1"=30'

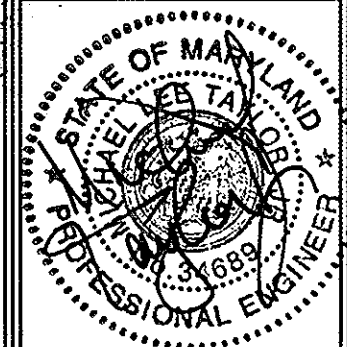
OWNER/DEVELOPER
CFC Land, LLC
11710 Stonegate Lane
Columbia, MD 21044
Attn: Ms. Cindy DeLoppo
443-250-6345

PRELIMINARY PLAN
KINGS COVE
(A RESUBDIVISION OF LOTS 4 AND 5-A, PLAT NUMBERS PB 7/F 71 AND PB 026/F 039)
ZONING R-12
TAX MAP 42 GRID 7 PARCELS 61, 250 & 251
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

Area	Water Quality (WQV) Req'd/Prov'd		Recharge (Rev) Req'd/Prov'd		Channel Protection (CPv) Req'd/Prov'd	
	Req'd	Prov'd	Req'd	Prov'd	Req'd	Prov'd
Total Site Area (2.51 Ac.)	3,311 cu.ft./3,311 cu.ft.		3,877 cu.ft./3,877 cu.ft.		3,877 cu.ft./3,877 cu.ft.	
Comments	Water Quality Provided Through the Sand Filter Facility (Type P-5)		Recharge Provided through the Grass Channel Credit Using the Percent Area Method		Channel Protection Provided within Sand Filter Facility (Type P-5) through extended detention	

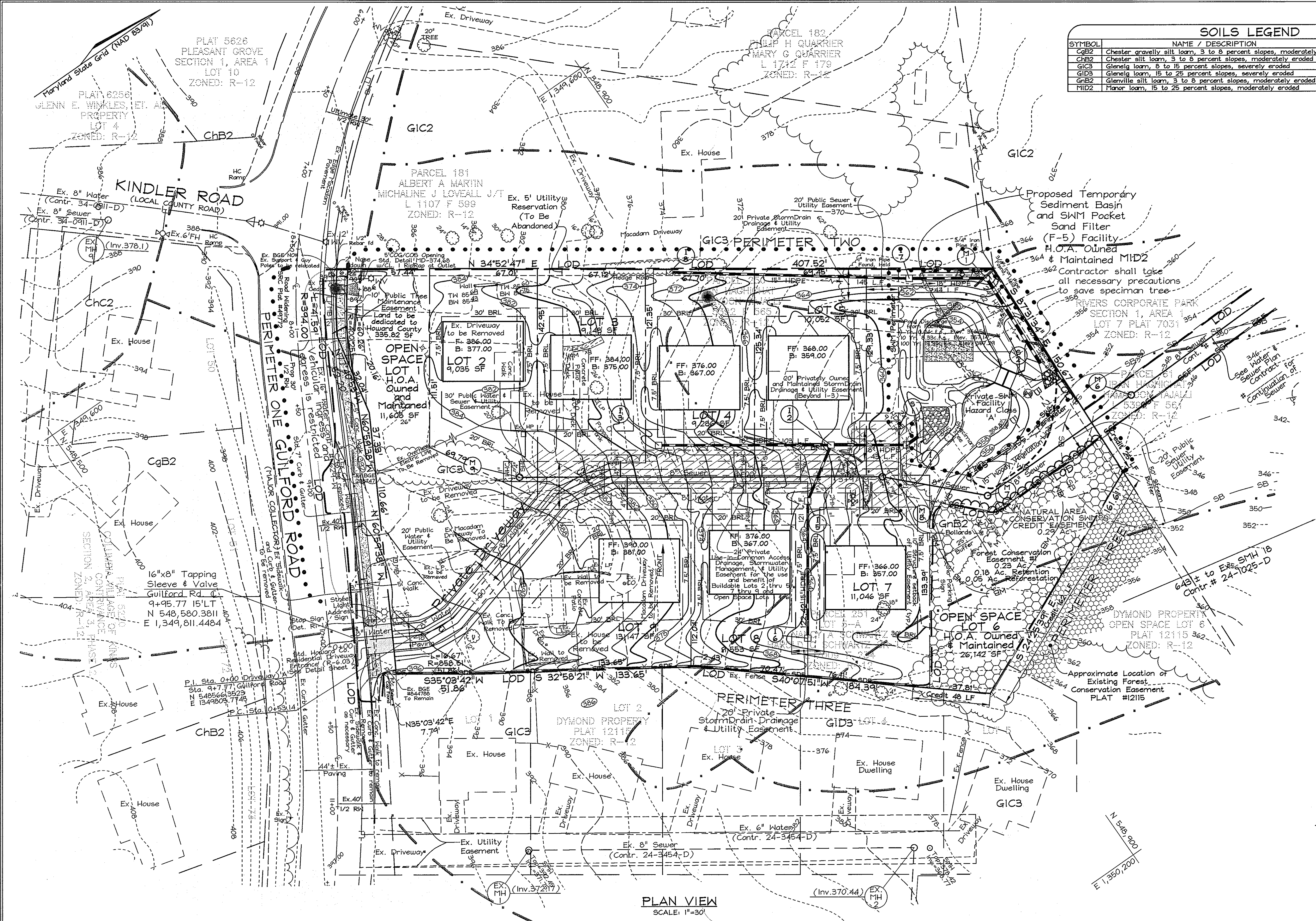
TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY
Mark A. Wright 2/26/09
PLANNING DIRECTOR DATE

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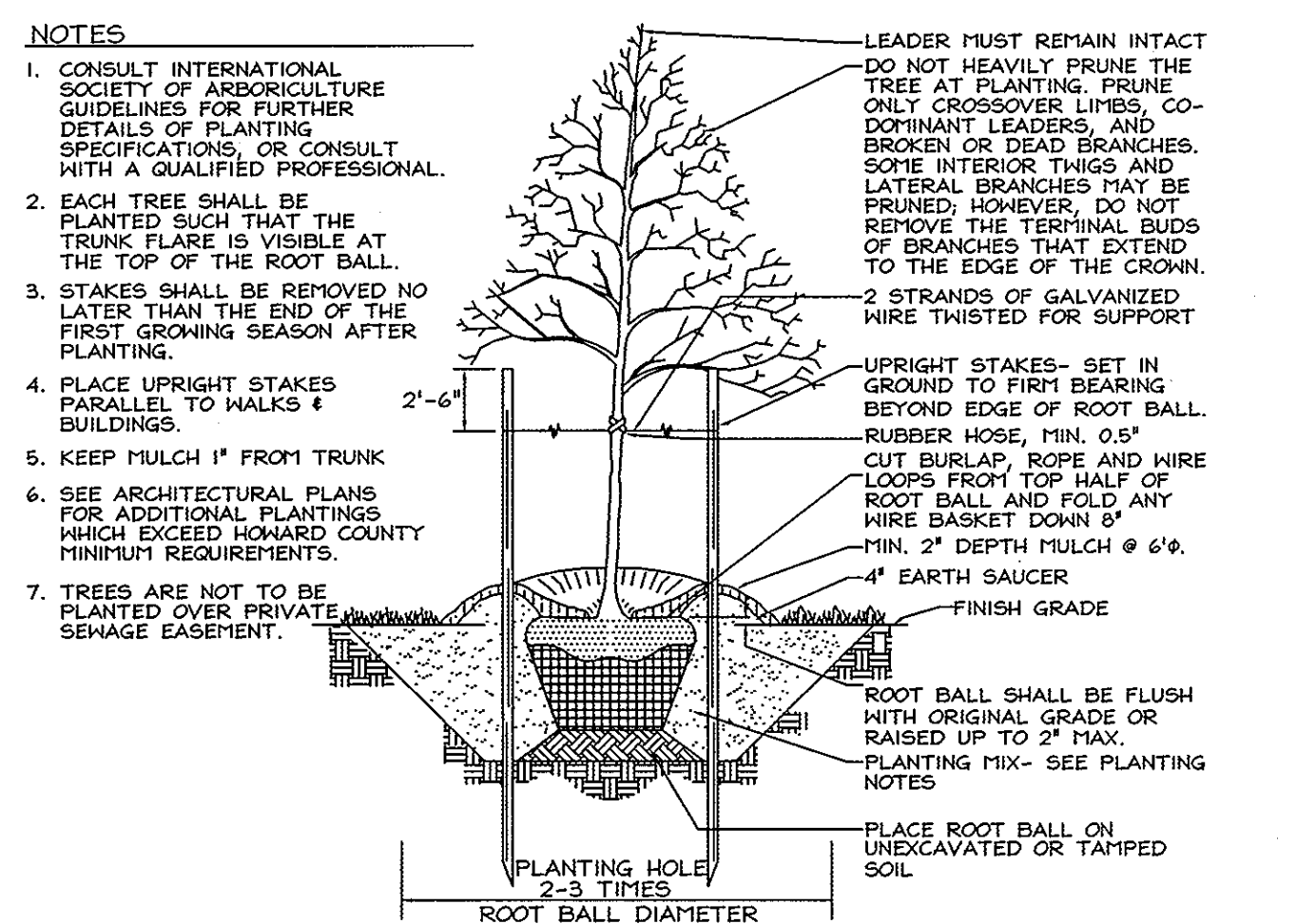
DESIGN BY: MLT
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CHECKED BY: ZYF
SCALE: As Shown
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W.O. No.: 3394
SHEET No. 3 OF 7



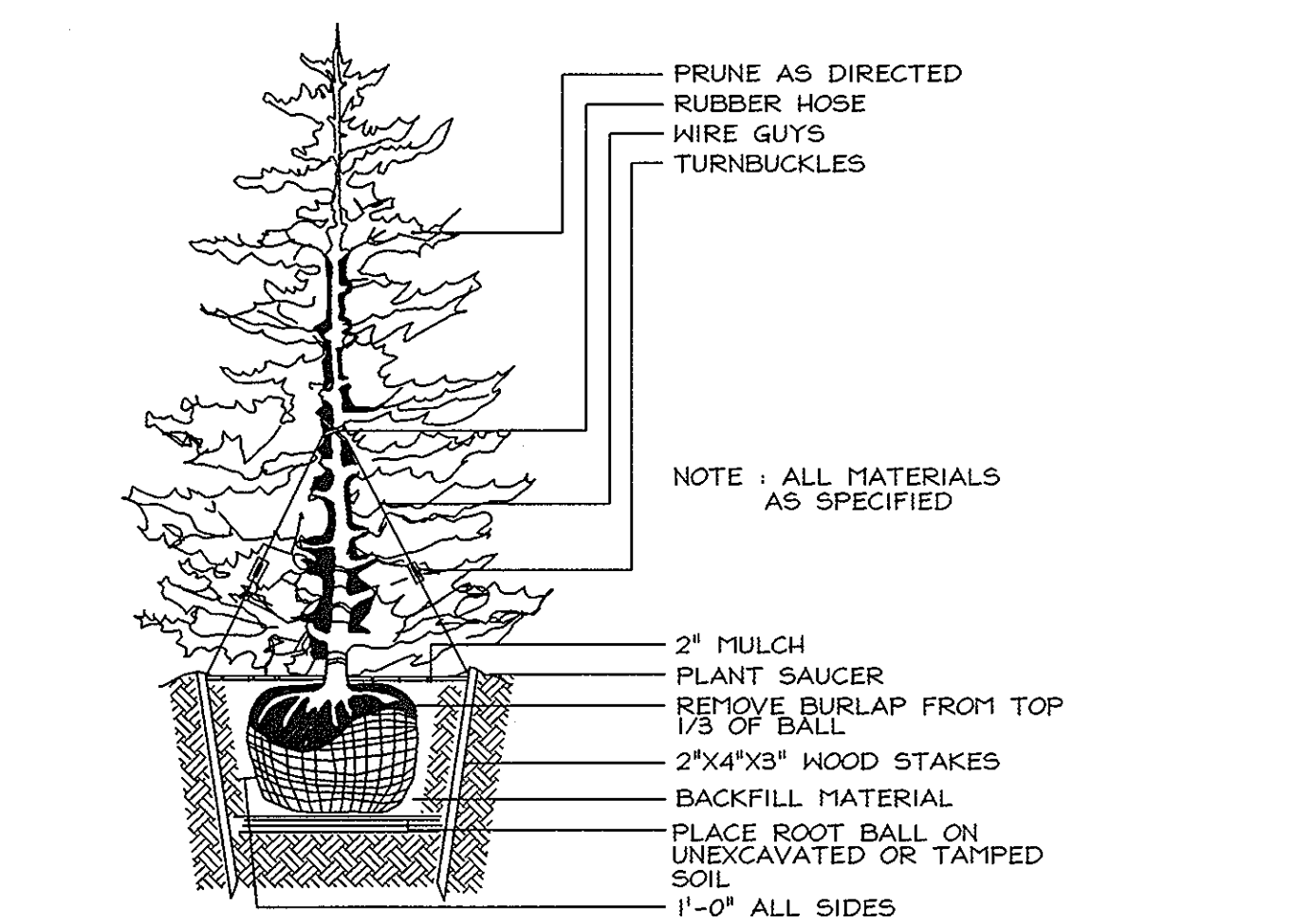
SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	SOIL GROUP
CgB2	Chester gravelly silt loam, 3 to 8 percent slopes, moderately eroded	B
ChB2	Chester silt loam, 3 to 8 percent slopes, moderately eroded	B
GIC3	Glenelg loam, 8 to 15 percent slopes, severely eroded	B
GID3	Glenelg loam, 15 to 25 percent slopes, severely eroded	B
GnB2	Glenville silt loam, 3 to 8 percent slopes, moderately eroded	C
MID2	Minor loam, 15 to 25 percent slopes, moderately eroded	B

LEGEND

Existing Contour: ---
 Proposed Contour: - - -
 Proposed Spot Elevation: +60.50
 Existing Spot Elevation: 160.0
 Direction of Flow: --->---
 Existing Trees to Remain: (Tree symbol)
 Existing Tree to be Removed: (Tree symbol with X)
 Existing Specimen Tree: (Tree symbol with circle)
 Landscape Trees: (Tree symbols in circles)
 Soils Line: --- GIC3 ---
 Limit of Disturbance: --- LOD ---
 Silt Fence: --- SSF --- SSF ---



TYPICAL TREE PLANTING AND STAKING
 DECIDUOUS TREES UP TO 2-1/2" CALIPER NOT TO SCALE



TYPICAL EVERGREEN TREE PLANTING DETAIL
 NOT TO SCALE

OWNER/DEVELOPER

CMC Land, LLC
 11710 Stonegate Lane
 Columbia, MD 21044
 Attn: Ms. Cindy Deizoppo
 443-250-6395

PRELIMINARY GRADING, LANDSCAPING, SEDIMENT & EROSION CONTROL, & SOILS PLAN
KINGS COVE
 (A RESUBDIVISION OF LOTS 4 AND 5-A, PLAT NUMBERS PB 7/F 71 AND PB 026/F 039)
 ZONING R-12
 TAX MAP 42 GRID 7 PARCELS 61, 250 & 251
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DESIGN BY: MLT
 DRAWN BY: HS
 CHECKED BY: ZYF
 SCALE: As Shown
 DATE: Feb. 2, 2009
 N.O. No.: 3394
 SHEET No.: 4 OF 7

FSH Associates
 Engineers Planners Surveyors
 6339 Howard Lane, Elkridge, MD 21075
 Tel: 410-567-5200 Fax: 410-796-1562
 E-mail: info@fsh.com

SCHEDULE A PERIMETER LANDSCAPE EDGE

CATEGORY	ADJACENT TO ROADWAYS		ADJACENT TO PERIMETER PROPERTIES	
	2	3	2	3
Perimeter/Frontage Designation	B	A	A	A
Landscape Type				
Linear Feet of Roadway Frontage/Perimeter	210		558	532
Credit for Existing Vegetation (Yes, No, Linear Feet)	No		Yes (25 LF)	Yes (210 LF)
Remaining Perimeter Length			533 LF	322 LF
Credit for Wall, Fence or Berm (Yes, No, Linear Feet)	No		No	No
Remaining Perimeter Length				
Number of Plants Required	1:50 4		1:60 9	1:60 5
Shade Trees	1:40 5		-	-
Evergreen Trees			-	-
Shrubs			-	-

SCHEDULE D: STORMWATER MANAGEMENT AREA LANDSCAPING

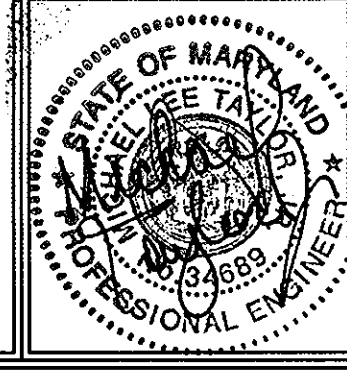
Perimeter/Frontage Designation	SMI1 Perimeter
Landscape Type	B
Linear Feet of Perimeter	415'
Credit for Existing Vegetation (No, Yes and Linear Feet)	No
Remaining Perimeter Length	-
Credit for Wall, Fence or Berm (No, Yes and %)	No
Number of Trees Required	1:50 8
Shade Trees (1:50)	1:40 10
Evergreen Trees (1:40)	

PLAN VIEW
 SCALE: 1"=30'

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

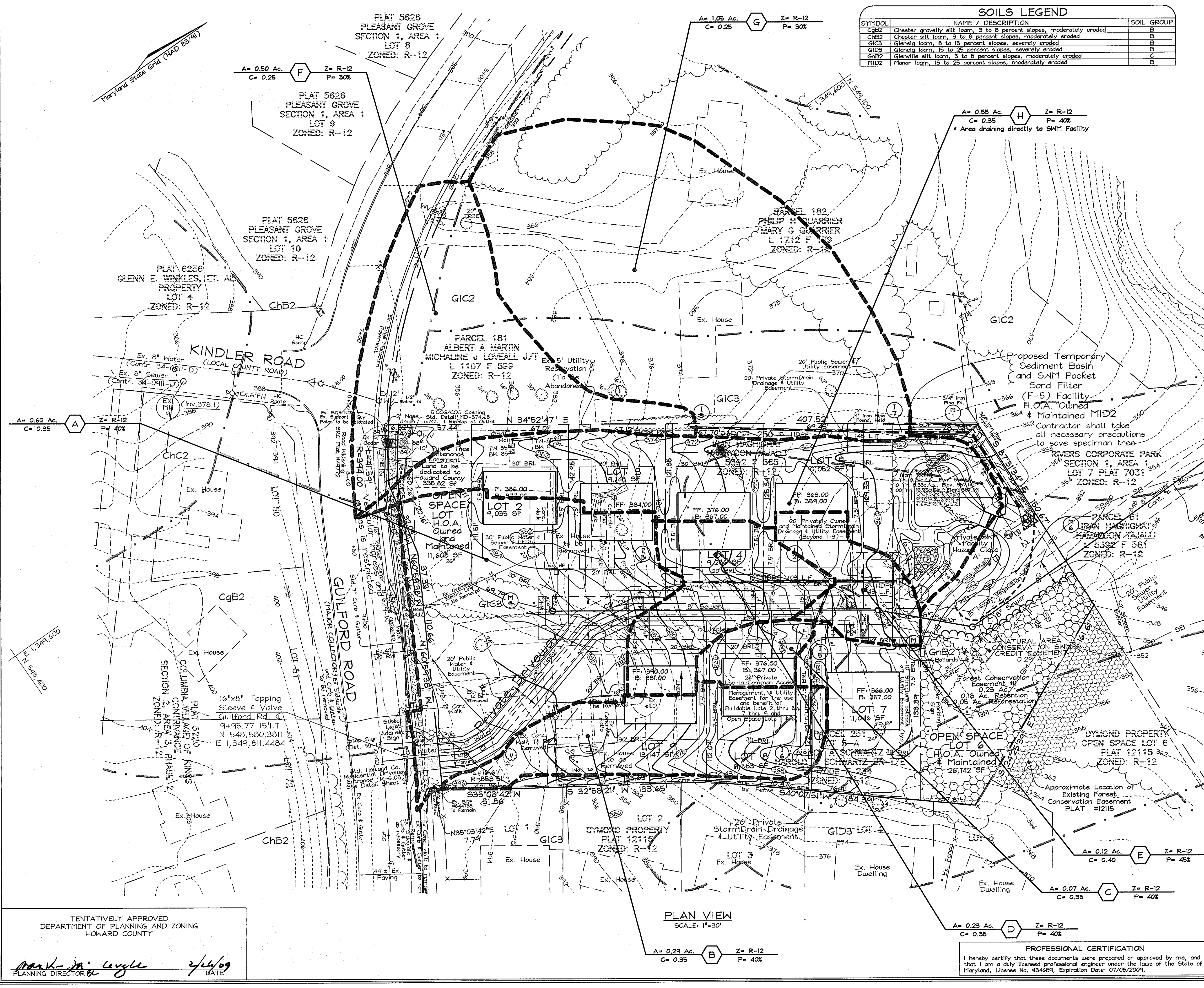
Mark A. Coughlin
 PLANNING DIRECTOR
 2/26/09
 DATE

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GIC3	Glenn loam, 8 to 15 percent slopes, severely eroded	B
GID3	Glenn loam, 15 to 25 percent slopes, severely eroded	B
GnB2	Glennville silt loam, 3 to 8 percent slopes, moderately eroded	C
MD2	Manor loam, 15 to 25 percent slopes, moderately eroded	B

LEGEND	
Existing Contour	-----760
Proposed Contour	-----760
Proposed Spot Elevation	+60.50
Existing Spot Elevation	160.5
Direction of Flow	
Existing Trees to Remain	
Soils Line	--- GIC3 ---
Drainage Area Info	A= 1.05 Ac. Z= R-12 C= 0.25 P= 30%
Drainage Area Line	



OWNER/DEVELOPER
 CMC Land, LLC
 11710 Stonegate Lane
 Columbia, MD 21044
 Attn: Ms. Cindy DeZoppo
 443-250-6396

PRELIMINARY STORMDRAIN DRAINAGE AREA MAP
KINGS COVE
 (A RESUBDIVISION OF LOTS 4 AND 5-A, PLAT NUMBERS PB 7/F 71 AND PB 026/F 039)
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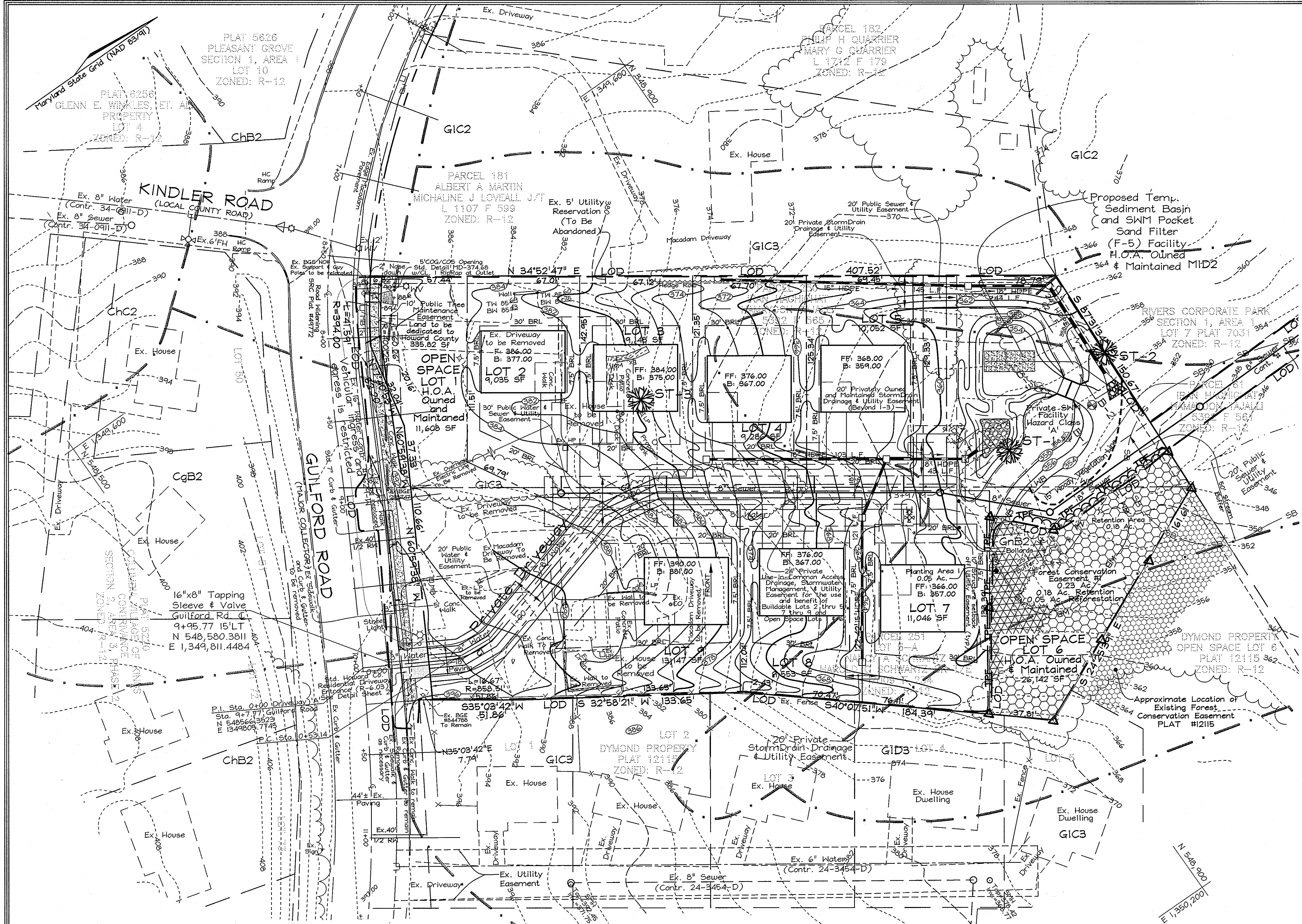
TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

Mark J. Loyall 2/26/09
 PLANNING DIRECTOR DATE

PLAN VIEW
 SCALE: 1"=30'

A= 0.29 Ac. Z= R-12
 C= 0.35 P= 40%

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LEGEND

Existing Contour	---382---
Proposed Contour	---382---
Existing Trees to Remain	
Stream Centerline	---SB---
Stream Buffer	---SB---
Wetland	---W---
Wetland Buffer	---WB---
Soil Boundary	---S---
Forest Conservation Easement Retention Area	
Forest Conservation Easement Reforestation Area	
FCE Signage	
Tree Protection Fence	---TPF---

FOREST CONSERVATION NARRATIVE

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

The total tract area consists of 2.51 acres of land. The site contains 0.46 acres of forest resources, 0.18 acres of which shall be retained in a Forest Conservation Easement. There are 3 specimen trees on-site, all of which will be removed for site grading and utilities.

Of the required 0.48 acres of reforestation, 0.05 Ac. shall be planted in the Forest Conservation Easement. The easement will partially contain priority areas of wetland and wetland buffer. The remaining 0.43 acres of obligation will be fulfilled by a fee-in-lieu payment of \$14,048.10 (18,730.8 s.f. @ \$0.75/s.f.).

FOREST CONSERVATION WORKSHEET

Net Tract Area	Acres
A. Total Tract Area	2.51
B. Area Within 100 Year Floodplain	---
C. Other deductions	---
D. Net Tract Area	2.51
Zoning Use Category: RESIDENTIAL-SUBURBAN	
Land Use Category	
E. Afforestation Minimum (15 % x D)	0.38
F. Conservation Threshold (20 % x D)	0.50
Existing Forest Cover	
G. Existing Forest on Net Tract Area	0.42
H. Forest Area Above Conservation Threshold	0
Breakeven Point	
I. Forest Retention Above Threshold with no Mitigation	0.50
J. Clearing Permitted without Mitigation	0
Proposed Forest Clearing	
K. Forest Areas to be Cleared	0.24
L. Forest Areas to be Retained	0.18
Planting Requirements	
M. Reforestation for Clearing Above Threshold	0
N. Reforestation for Clearing Below the Threshold	0.48
P. Credit for Retention Above Conservation Threshold	0
Q. Total Reforestation Required	0.48
R. Total Afforestation Required	0
S. Total Reforestation and Afforestation Requirement	0.48

OWNER/DEVELOPER

C/M Land, LLC
 1170 Stonegate Lane
 Columbia, MD 21044
 Attn: Ms. Cindy Delozoppo
 443-250-6395

PRELIMINARY FOREST CONSERVATION PLAN
KINGS COVE
 (A RESUBDIVISION OF LOTS 4 AND 5-A, PLAT NUMBERS PB 7/F 71 AND PB 026/F 039)
 ZONING R-12

TAX MAP 42 GRID 7 PARCELS 61, 250 & 251
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SPECIMEN TREES

NO.	DBH	COMMON NAME	SCIENTIFIC NAME	CONDITION	RETAINED
ST-1	40"	Willow	Salix sp.	Fair	NO
ST-2	44"	White oak	Quercus alba	Good	NO
ST-3	31"	Yellow poplar	Liriodendron tulipifera	Good	NO

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
CqB2	Chester gravelly silt loam, 3 to 8 percent slopes, moderately eroded	B
ChB2	Chester silt loam, 3 to 8 percent slopes, moderately eroded	B
GIC3	Glenelg loam, 8 to 15 percent slopes, severely eroded	B
GIDB	Glenelg loam, 15 to 25 percent slopes, severely eroded	B
GnB2	Glenville silt loam, 3 to 8 percent slopes, moderately eroded	C
MID2	Manor loam, 15 to 25 percent slopes, moderately eroded	B

REFORESTATION AREA : 2,178 Sq. ft. (0.05 Ac)
 2,178 Sq. ft. (350 TPA) 2'-3" Whip planting with Tree Shelters
 0.05 acre x 350 TPA = 18 trees required

Qty	Botanical Name	Common Name	Min. Size	Spacing	Notes
4	Acer negundo	Boxelder	WHIP 2'-3" w/shelters	11' o.c.	1-3 Gallon Container Group
4	Liquidambar styraciflua	Sweetgum	WHIP 2'-3" w/shelters	11' o.c.	
5	Quercus palustris	Pin Oak	WHIP 2'-3" w/shelters	11' o.c.	
5	Amelanchier arborea	Serviceberry	WHIP 2'-3" w/shelters	11' o.c.	

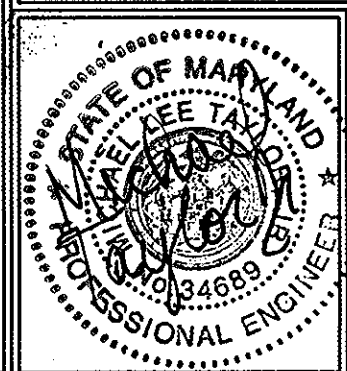
GENERAL NOTES

1. Per a search on the MERLIN website on October 17, 2007, the subject property contains no floodplains, rare, threatened or endangered species or critical habitats for rare, threatened or endangered species, no historic structures or other historic resources (including trees and cemeteries).



FOREST CONSERVATION PLAN PREPARED BY:

EXPLORATION RESEARCH, INC.
 ENVIRONMENTAL CONSULTANTS
 LANDSCAPE ARCHITECTS
 6339 HOWARD LANE
 ELKridge, MARYLAND 21075
 TEL: (410) 867-6210 FAX: (410) 708-1682



FSH Associates
 Engineers Planners Surveyors
 5339 Howard Lane, Elkridge, MD 21075
 Tel: 410-567-5200 Fax: 410-796-1562
 E-mail: info@fsher.com

DESIGN BY: MLT/SMH
 DRAWN BY: HS/SMH
 CHECKED BY: ZF/RAB
 SCALE: As Shown
 DATE: Feb. 2, 2009
 P.L.O. No.: 3394/2379
 SHEET No. 1 OF 7

TENTATIVELY APPROVED
 DEPARTMENT OF PLANNING AND ZONING
 HOWARD COUNTY

Mark A. Wright
 PLANNING DIRECTOR

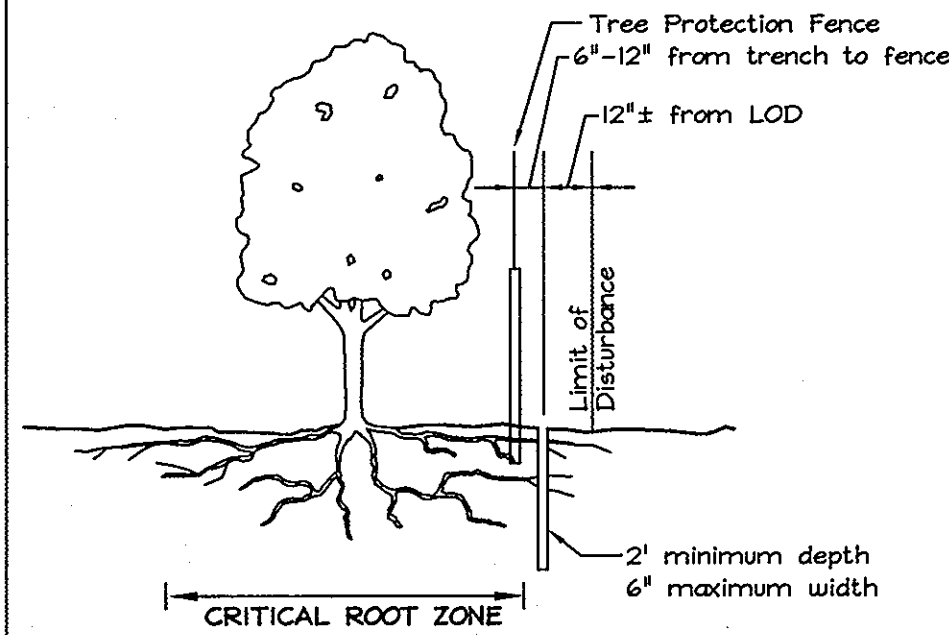
2/26/09
 DATE

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. #34689, Expiration Date: 07/08/2009.

ROOT PRUNING

- Retention areas shall be set prior to construction
- Boundaries of retention areas shall be flagged, and location of trench shall be specified by ERI Qualified Professional.
- Roots shall be cut cleanly with root pruning equipment. Where roots >1" are found, trenching shall be done by air spade or hand tools. Roots >1" shall be cut with a hand saw.
- Trench shall be immediately backfilled with soil removed or high organic content soil.
- Any other techniques shall be approved by the ERI Qualified Professional before implementation.



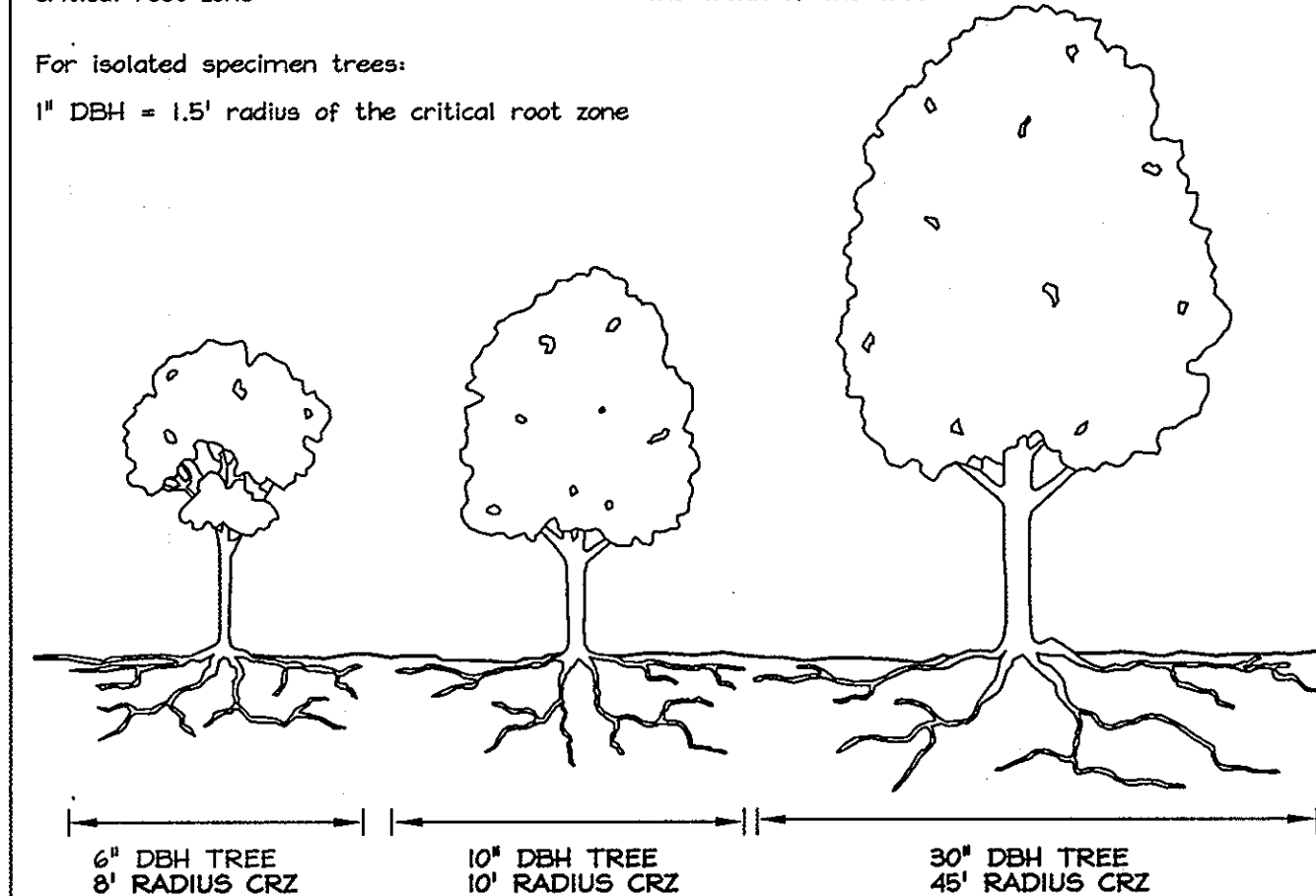
CRITICAL ROOT ZONE

For the edge of large areas, use the greater of the two choices below:

1" DBH of the tree = 1' radius of the or 8 ft radius circle around the trunk of the tree

For isolated specimen trees:

1" DBH = 1.5' radius of the critical root zone



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 determine 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.

Reforestation Area Planting Notes

- Initial planting inspection and certification required. Planting contractor to notify ERI qualified professional 24 hours in advance of planting.
- Reforestation areas may be planted as soon as reasonable to do so. Late winter- early spring plantings are preferred. Earliest planting dates will vary from year to year but planting may generally begin as soon as the ground is no longer frozen. Alternate planting dates may be considered as conditions warrant.
- Soil amendments and fertilization recommendations will be made based upon the results of soil analysis for nitrogen, phosphorus, potassium, organic matter content and pH. If required, fertilizer will be provided using a slow release, soluble 16-8-16 analysis designed to last 5-8 years contained in polyethylene perforated bags such as manufactured by ADCO Morky, P.O. Box 310 Hollis, N.Y. 11423 or approved equal.
- Plant materials shall be planted in accordance with the planting diagram, planting details and planting schedule.
- Plant stock must be protected from desiccation at all times prior to planting. Materials held for planting shall be moistened and placed in cool shaded areas until ready for placement.
- Planting materials shall be nursery grown and inspected prior to planting. Plants not conforming to the American Standards for Nursery Stock specifications for size, form, vigor, or roots, or due to trunk wounds, breakage, desiccation, insect or disease must be replaced.
- Newly planted trees may require watering at least once per week during the first growing season depending on rainfall in order to get established. The initial planting operation should allow for watering during installation to completely soak backfill materials.
- Mulch shall be applied in accordance with the diagram provided and shall consist of composted, shredded hardwood bark mulch, free of wood alcohol.
- Planting holes should be excavated to a minimum diameter of 2.5 to 3 times the diameter of the root ball or container. Mechanical angling is preferred with scarification of the sides of each hole.
- All nursery stock to be sprayed with deer repellent containing Bitrex such as Repellex All nursery stock to be grown with deer repellent tablets in growing medium, such as Repellex Tablets.

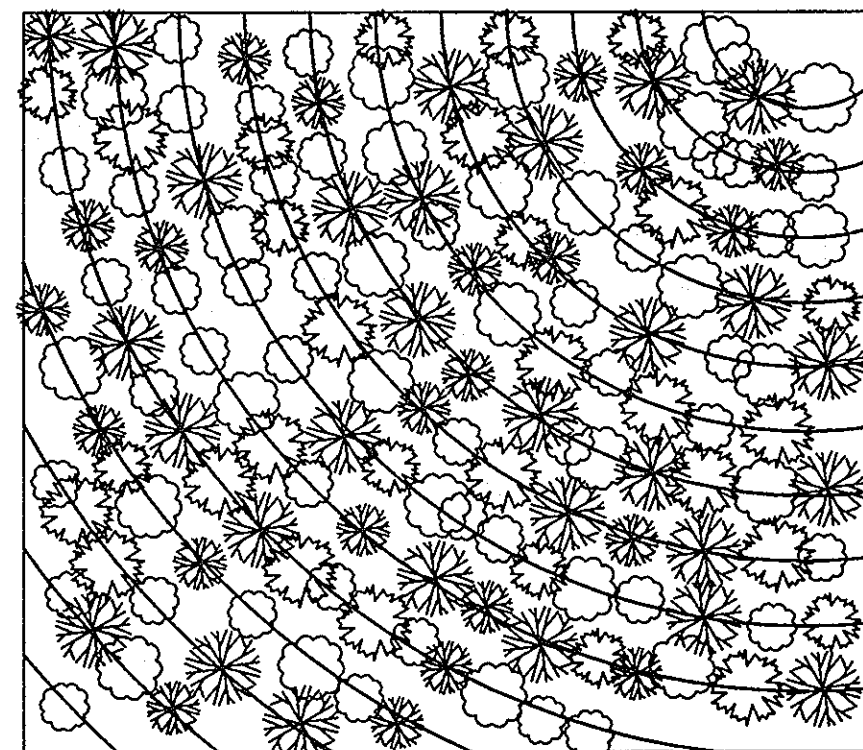
Forest Retention Management Notes

- All proposed activities shall adhere to the conditions, schedules and terms of an approved sediment control and erosion plan.
- After the boundaries of the retention area have been staked and flagged and before any disturbance has taken place on-site, a preconstruction meeting at the construction site shall take place. The developer, contractor or project manager, and appropriate County Inspectors shall attend.
- Tree protection for all retained areas:
 - All retention areas within 50 feet of proposed construction activities shall be protected by highly visible, well anchored temporary protection devices (silt fence or blaze orange plastic mesh).
 - All protection devices shall be in place prior to any grading or land clearing.
 - All protection devices shall be properly maintained and shall remain in place until construction has ceased.
 - Attachment of signs, fencing or other objects to trees is prohibited.
 - No equipment, machinery, vehicles, materials or excessive pedestrian traffic shall be allowed within protected areas.
- If the critical root zone (see detail) is affected by construction activities such as grade change, digging for foundations and roads or utility installation:
 - Prune roots with a clean cut using proper pruning equipment (see root pruning detail).
 - Water and fertilize as needed.
- During construction phase, monitor and correct condition of retained trees for: soil compaction, root injury, flood conditions, drought conditions and other stress signs.
- Post-Construction Phase:
 - Inspect existing trees around the perimeter of disturbed limits for evidence of soil compaction, root injury, limb injury, or other stress signs and correct with proper management techniques such as root or limb pruning, soil aeration, fertilization, crown reduction or watering. Inspection and evaluation shall be performed by a licensed arborist.
 - Inspect for dead or dying trees or limbs which may pose safety hazard and remove.
 - No burial of discarded materials will occur onsite within the conservation areas.
 - No burning within 100 feet of wooded area.
 - All temporary forest protection structures will be removed after construction.
 - Following completion of construction, prior to use, the County inspector shall inspect the entire area.

Reforestation Area Monitoring Notes

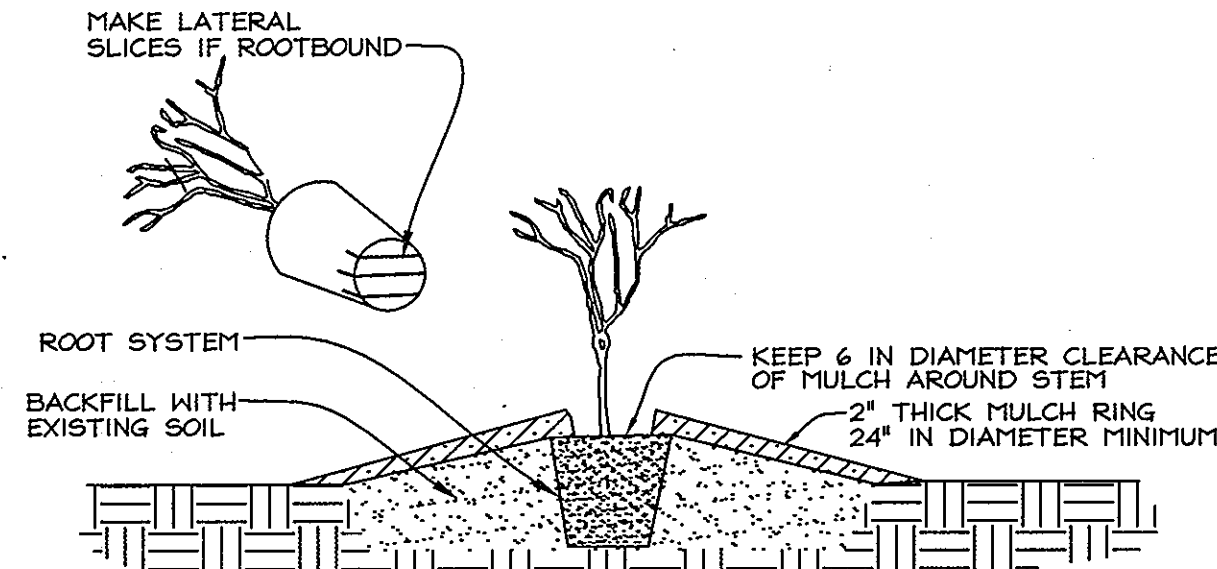
- Monthly visits during the first growing season are to assess the success of the plantings and to determine if supplemental watering, pest control or other actions are necessary. Early spring visits will document winter kill and autumn visits will document summer kill.
 - The minimum survival rate shall be 75% of the total number of trees planted per acre at the end of the two year maintenance period. Wild tree seedlings from natural regeneration on the planting site may be counted up to 50% toward the total survival number if they are healthy native species at least 12 inches tall.
- Certification at the end of the two-year post construction period must indicate that the survival rates will result in a 100 tree per acre ratio for a forest and the 3 to 4 foot height standard for whips by the end of the two growing season post construction period, with at least 50% of those trees having the potential of attaining a 2" caliper DBH within 7 years.
- Survival will be determined by a stratified random sample of the plantings. The species composition of the sample population should be proportionate to the amount of each species in the entire planting to be sampled.
 - Effective monitoring will assess plant survivability during the first growing season and make recommendations for reinforcement planting if required at that time.

CURVEILINEAR RANDOMIZED PLANTING



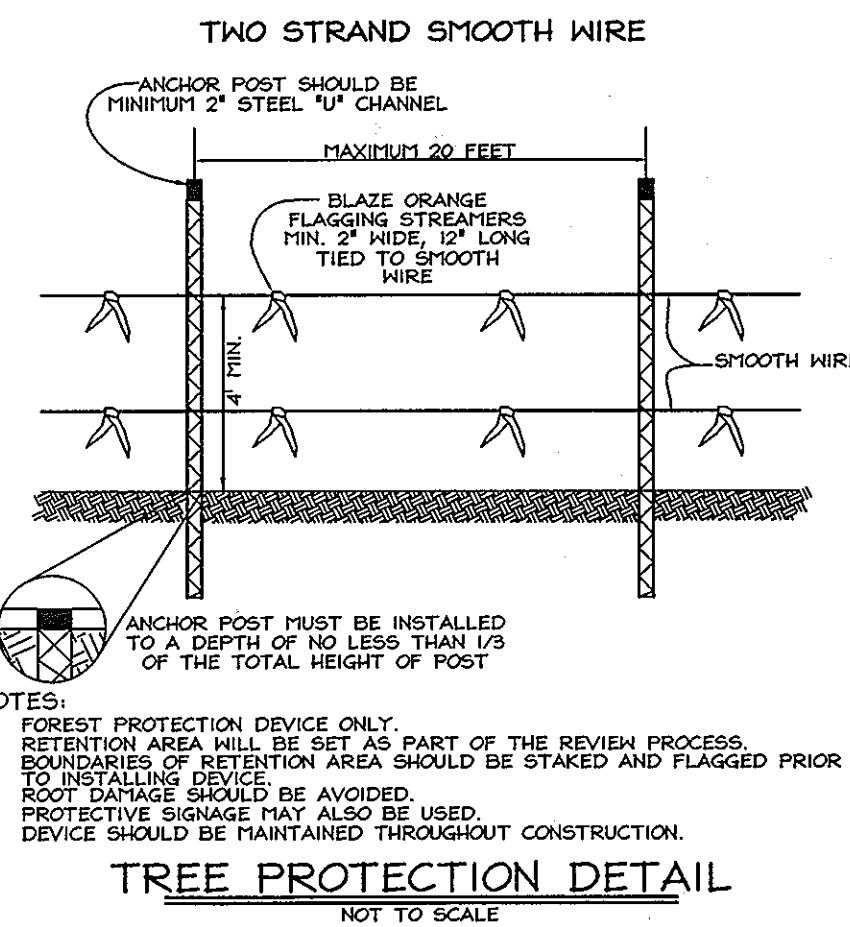
PLANT PLACEMENT DETAIL NOT TO SCALE

- MIX TREE AND SHRUB SPECIES IN THE STAGING AREA.
- SET THE GUIDE CURVILINEAR LINE AS CLOSE TO CONTOUR AS POSSIBLE

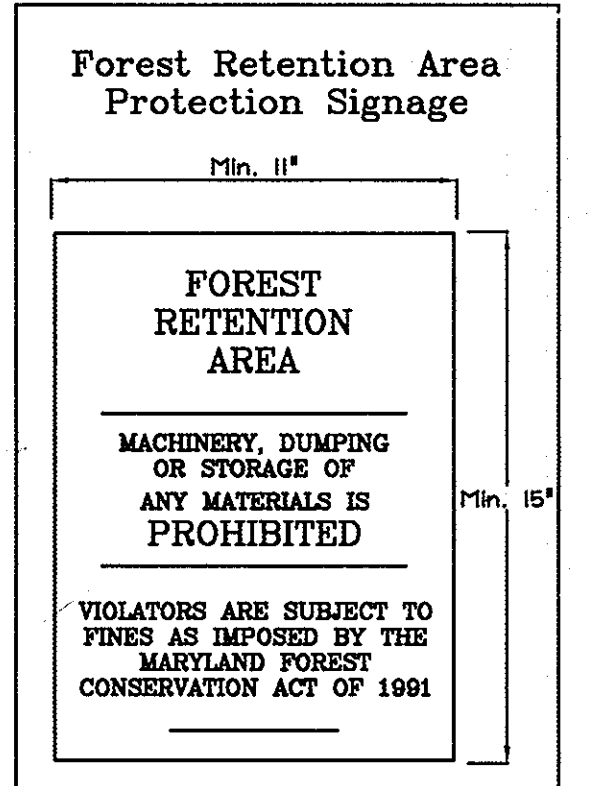


CONTAINER PLANTING NOT TO SCALE

- PLANTING PROCEDURE FOR CONTAINER GROWN PLANTS
- REMOVE THE PLANT EITHER BY CUTTING OR INVERTING THE CONTAINER
 - USE A KNIFE TO CUT THROUGH BOTTOM HALF OF THE ROOT BALL
 - PLANT SHRUBS ON FORMED UP MOUNDS 4" ABOVE THE EXISTING GRADE WHEN HIGH WATER TABLE CONDITIONS EXIST, OTHERWISE PLANT FLUSH WITH EXISTING GRADE.
 - PLANTING HOLE TO BE 2-3 TIMES THE DIAMETER OF THE CONTAINER.
 - INSERT FERTILIZER TABLET, BACKFILL 2/3 OF THE ROOT BALL AND WATER.
 - AFTER WATER PERCOLATES, BACKFILL HOLE TO TOP OF ROOT BALL AND GENTLY TAMP SOIL TO FIRM CONTACT WITH PLANT.
 - APPLY MULCH RING AROUND PLANT KEEPING A 6" IN CLEARANCE FROM STEM.



- NOTES:
- FOREST PROTECTION DEVICE ONLY.
 - RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS.
 - BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING DEVICE.
 - ROOT BALLS SHOULD BE AVOIDED.
 - PROTECTIVE SIGNAGE MAY ALSO BE USED.
 - DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.
- TREE PROTECTION DETAIL**
NOT TO SCALE

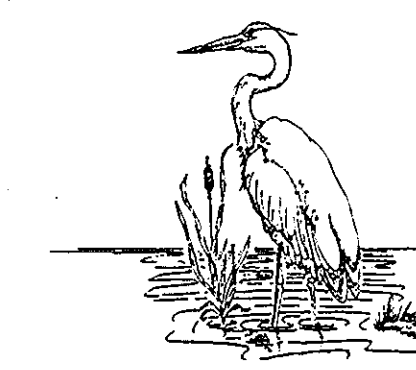


SIGNAGE NOTE: All tree protection signs shall be placed on metal 'T' posts or pressure treated wood poles. NO attachment of signs to trees is permitted.

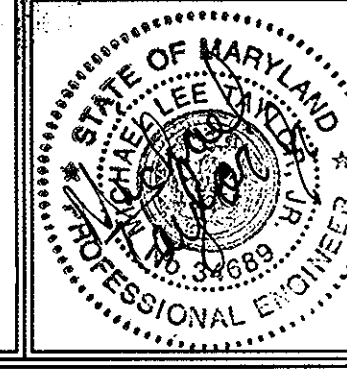
OWNER/DEVELOPER
CMC Land, LLC
11710 Stonegate Lane
Columbia, MD 21044
Attn: Ms. Cindy Delzoppo
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BLENHEIM, MARYLAND 21076
TEL: (410) 567-5200 FAX: (410) 798-1582



PRELIMINARY FOREST CONSERVATION NOTES AND DETAILS
KINGS COVE
(A RESUBDIVISION OF LOTS 4 AND 5-A, PLAT NUMBERS PB 7/F 71 AND PB 026/F 039)
ZONING R-12
TAX MAP 42 GRID 7 PARCELS 61, 250 & 251
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



FSH Associates
Engineers Planners Surveyors
8339 Howard Lane, Elkridge, MD 21075
Tel: 410-567-5200 Fax: 410-798-1582
E-mail: info@fshen.com

DESIGN BY: MLT/SMH
DRAWN BY: HS/SMH
CHECKED BY: ZF/RAB
SCALE: As Shown
DATE: Feb. 2, 2009
N.O. No.: 3394/2379
SHEET No.: 7 OF 7

TENTATIVELY APPROVED
DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY
Mark A. Cayle
PLANNING DIRECTOR
DATE: 2/2/09

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. #34689, Expiration Date: 07/08/2009.